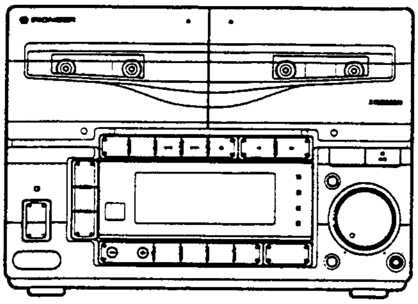
**PIONEER**

*The Art of Entertainment*

# Service Manual



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## STEREO CASSETTE DECK RECEIVER

# RX-P840

**THIS MANUAL IS APPLICABLE TO THE FOLLOWING MODEL(S) AND TYPE(S).**

| Type | Model | Power Requirement | The voltage can be converted by the following method. |
|---|---|---|---|
| | RX-P840 | | |
| SD | ○ | AC110V/120-127V/220V/240V | With the voltage selector |
| HB | ○ | AC240V | AC230V, * |
| KU | ○ | AC120V | —— |
| KC | ○ | AC120V | —— |

*: Alter the wiring of the Power-supply block at the primary winding of Power transformer referring to the "Line Voltage Selection" described in Service Manual.

- **This product is a system(s) component.**
  **This product does not function properly when independent; to avoid malfunctions, be sure to connect it to the prescribed system component(s), otherwise damage may result.**

## CONTENTS

CHAPTER 1

1.1 SAFETY INFORMATION ······ 1-2
1.2 SPECIFICATIONS ······ 1-3
1.3 PANEL FACILITIES ······ 1-4
1.4 DISASSEMBLY ······ 1-7
1.5 IC INFORMATION ······ 1-8
1.6 FL INFORMATION ······ 1-10
1.7 ADJUSTMENTS ······ 1-11
1.8 PARTS LIST FOR PACKING AND EXPLODED VIEWS ······ 1-19
1.9 PCB PARTS LIST ······ 1-23

CHAPTER 2

2.1 PACKING AND EXPLODED VIEWS ··· 2-3
2.2 SCHEMATIC AND PCB CONNECTION DIAGRAMS ······ 2-10
2.3 BLOCK DIAGRAM ······ 2-50

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T-DFF MAY 1994 Printed in Japan

# CHAPTER 1

## 1.1 SAFETY INFORMATION

**This service manual is intended for qualified service technicians; it is not meant for the casual do-it-yourselfer. Qualified technicians have the necessary test equipment and tools, and have been trained to properly and safely repair complex products such as those covered by this manual.**
**Improperly performed repairs can adversely affect the safety and reliability of the product and may void the warranty. If you are not qualified to perform the repair of this product properly and safely, you should not risk trying to do so and refer the repair to a qualified service technician.**

WARNING
**Lead in solder used in this product is listed by the California Health and Welfare agency as a known reproductive toxicant which may cause birth defects or other reproductive harm (California Health & Safety Code, Section 25249.5).**
**When servicing or handling circuit boards and other components which contain lead in solder, avoid unprotected skin contact with the solder. Also, when soldering do not inhale any smoke or fumes produced.**

NOTICE
(FOR CANADIAN MODEL ONLY)
Fuse symbols (fast operating fuse) and/or (slow operating fuse) on PCB indicate that replacement parts must be of identical designation.

REMARQUE
(POUR MODÈLE CANADIEN SEULEMENT)
Les symboles de fusible (fusible de type rapide) et/ou (fusible de type lent) sur CCI indiquent que les pièces de remplacement doivent avoir la même désignation.

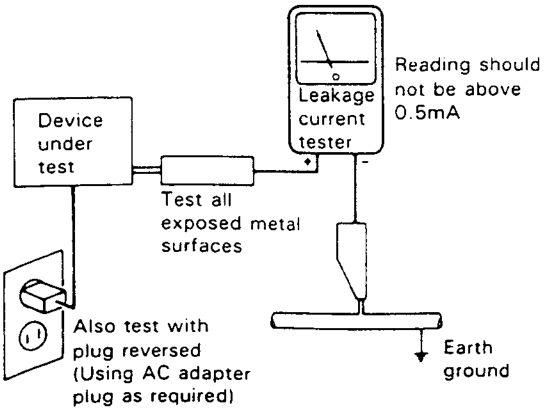
(FOR USA MODEL ONLY)

### 1. SAFETY PRECAUTIONS

The following check should be performed for the continued protection of the customer and service technician.

LEAKAGE CURRENT CHECK

Measure leakage current to a known earth ground (water pipe, conduit, etc.) by connecting a leakage current tester such as Simpson Model 229-2 or equivalent between the earth ground and all exposed metal parts of the appliance (input/output terminals, screwheads, metal overlays, control shaft, etc.). Plug the AC line cord of the appliance directly into a 120V AC 60Hz outlet and turn the AC power switch on. Any current measured must not exceed 0.5mA.


Leakage current tester
Reading should not be above 0.5mA
Device under test
Test all exposed metal surfaces
Also test with plug reversed (Using AC adapter plug as required)
Earth ground

AC Leakage Test

ANY MEASUREMENTS NOT WITHIN THE LIMITS OUTLINED ABOVE ARE INDICATIVE OF A POTENTIAL SHOCK HAZARD AND MUST BE CORRECTED BEFORE RETURNING THE APPLIANCE TO THE CUSTOMER.

### 2. PRODUCT SAFETY NOTICE

Many electrical and mechanical parts in the appliance have special safety related characteristics. These are often not evident from visual inspection nor the protection afforded by them necessarily can be obtained by using replacement components rated for voltage, wattage, etc. Replacement parts which have these special safety characteristics are identified in this Service Manual.

Electrical components having such features are identified by marking with a ⚠ on the schematics and on the parts list in this Service Manual.
The use of a substitute replacement component which dose not have the same safety characteristics as the PIONEER recommended replacement one, shown in the parts list in this Service Manual, may create shock, fire, or other hazards.

Product Safety is continuously under review and new instructions are issued from time to time. For the latest information, always consult the current PIONEER Service Manual. A subscription to, or additional copies of, PIONEER Service Manual may be obtained at a nominal charge from PIONEER.

# 1.2 SPECIFICATIONS

## ■ STEREO CASSETTE DECK RECEIVER: RX-P840

**Amplifier Section**

**<U.S. model>**

**Continuous Average Power Output is 70 Watts* per channel, min., at 8 ohms from 40 Hz to 20,000 Hz with no more than 0.9 %** total harmonic distortion.**

Continuous power output (RMS)
............................100 W+100 W (1 kHz, T.H.D. 10%, 8 Ω)
Continuous power output (DIN)
.................................75 W+75 W (1 kHz, T.H.D. 1%, 8 Ω)
Music power (DIN).....................................324 W (Total)
Peak music power output
(Multi-voltage model only).............................730 W/8 Ω

**FM Tuner Section**

Reception frequencies.............................87.5 – 108 MHz

**AM Tuner Section**

Reception frequencies ...............531 kHz – 1602 kHz (9k)
530 kHz – 1700 kHz (10k)
Antenna ...................................Loop antenna (included)

**Double Cassette Deck Section**

System type ............................4-track, 2-channel stereo
Heads ................................Recording/playback head x 1
Playback head x 1
Erasing head x 1
Motor ................................................DC servo motor x 1
Type II (High/CrO$_2$) tape
...................................................*35 Hz – 15,000 Hz ±6dB
(recorded at –20 dB)
Type I (Normal) tape ................*35 Hz – 14,000 Hz ±6dB
(recorded at –20 dB)

Frequency response
  SN ratio ............................................................*56 dB
  (peak recording level, audible compensation)
  Dolby B type NR on ....10 dB compensation at 5 kHz
  Dolby C type NR on ....19 dB compensation at 5 kHz

* Values measured in accordance with EIAJ standards.

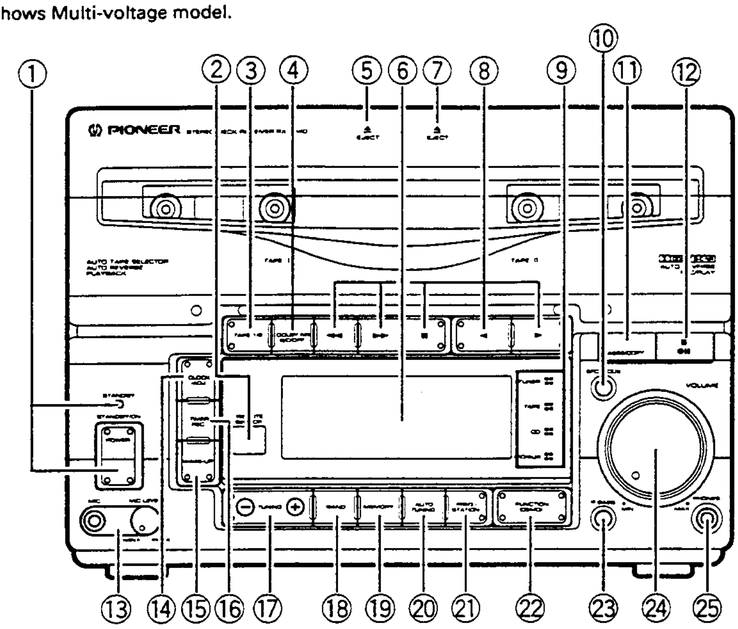
## ■ ELECTRICAL REQUIREMENTS, ETC.

Power requirements
  U.S. model ..........................................AC 120 V, 60 Hz
  U.K. model.............................AC 240 Volts~, 50/60 Hz
  Multi-voltage model
    Stereo deck receiver section........AC 110/120 – 127/
    220/240 V (Switchable), 50/60 Hz
Power consumption
  Stereo deck receiver section
    U.S. model ........................................................170 W
    U.K. and Multi-voltage models.......................390 W
AC OUTLET ...................UNSWITCHED 100 W MAX x 1

External dimensions
  Stereo deck receiver section
  .................................. 260 (W) x 185 (H) x 365 (D) mm
  10-1/4 (W) x 7-5/16 (H) x 14-3/8 (D) in.
Weight
  Stereo deck receiver section ..........7.3 kg (16 lb 3 oz)

## 1.3 PANEL FACILITIES

The illustration shows Multi-voltage model.



① **POWER STANDBY/ON switch/STANDBY indicator**
This is the switch for electric power.

| | |
|---|---|
| **ON:** | When set to the ON position, power is supplied and the unit becomes operational. |
| **STANDBY:** | When set to the STANDBY position, the main power flow is cut and the unit is no longer fully operational. A minute flow of power feeds the unit to maintain operation readiness. |

② **Remote control sensor (REMOTE SENSOR)**

③ **TAPE1/2 select button**

④ **DOLBY* NR select button (B/C/OFF)**

*
- *Dolby noise reduction manufactured under license from Dolby Laboratories Licensing Corporation.*
- *"DOLBY" and the double-D symbol ꟷꟷ are trademarks of Dolby Laboratories Licensing Corporation.*

⑤ **TAPE I EJECT port (⏏)**

⑥ **Display**

⑦ **TAPE II EJECT port (⏏)**

⑧ **TAPE 1/2 operating buttons (◄◄, ►►, ■, ◄, ►)**

⑨ **Function select indicator (TUNER, TAPE, CD, MD/AUX)**

⑩ **Sound Field Control (SFC MODE)button**

⑪ **ASES/COPY button**

⑫ **Record/pause button (●II)**

⑬ **Microphone jack (MIC) and microphone level control (MIC LEVEL) (Multi-voltage model only)**

⑭ **Clock adjust button (CLOCK-ADJ)**

⑮ **WAKE-UP button**

⑯ **Timer recording button (TIMER REC)**

⑰ **TUNING (+, –) button**

⑱ **BAND button**

⑲ **MEMORY button**

⑳ **AUTO TUNING button**

㉑ **Frequency/station button (FREQ./STATION)**

㉒ **FUNCTION select button (DEMO button)**
Each time this button is pressed, the function changes in the following sequence:

→ TUNER → TAPE → CD
MD/AUX ←

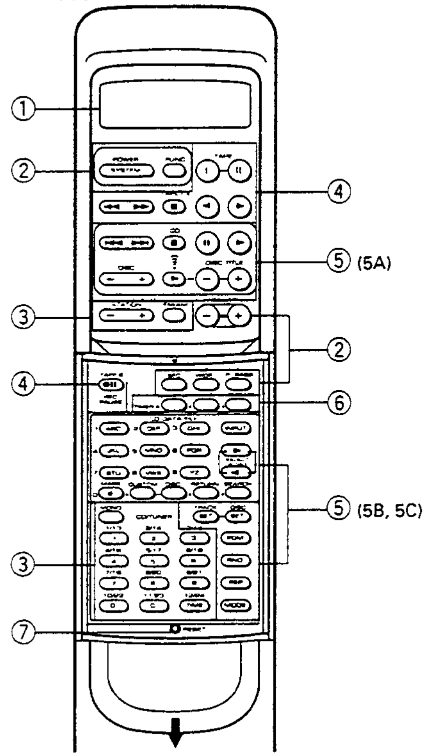
㉓ **P.BASS button**

㉔ **VOLUME control**

㉕ **Headphone jack (PHONES)**

## REMOTE CONTROL UNIT

- For U.K. model



Press and slide the upper lid surface
to open the remote control unit case.

Controls shown here without special instructions indicate functions which are the same as those found on the main deck-receiver unit.

### ① Display window

Displays the current operation.

### ② System function buttons

POWER SYSTEM ......Power switch (ON/STANDBY)

FUNC ................Function select button

VOLUME – + .........Main volume

SFC ...............Sound field selector

S-WIDE ...............Stereo wide pattern selector button

P. BASS ..............Bass boost mode button

### ③ TUNER operation buttons

TUNER STATION – + .......Use for calling radio stations stored in the station memory. Broadcast stations must be stored in the station memory before operating.

FM/AM ...............FM/AM selector

MONO ...............FM stereo/mono selector (operates only during FM stereo reception)

1/13 · ~ 12/24 TIME ....Station memory call buttons

### ④ TAPE I, TAPE II operation buttons

TAPE I II ........Use to select Tape I or Tape II

◄◄ ►► .......Fast forward, rewind button

TAPE I II ■ ...............Stop button

◄ ► .........Play buttons

TAPE II ●II REC PAUSE ................TAPE II record/pause button:
This button does not operate when TAPE I is lighted in the remote control unit's display. Switch first to TAPE II.

### ⑤ CD operation buttons

#### (5A) Buttons for ordinary operations

|◄◄ ►►| ......Track search button

CD ■ .................Stop button

II .................Pause button

► .................Play button

DISC – + ......Disc select button

► .................Send button (transmits the play signal for selected disc title to the main unit)

DISC TITLE – + .........Disc title button (use to select disc title)

#### (5B) Buttons for selecting and searching for disc titles

ABC ~ MARK * ...Character buttons

INPUT .............Input button

► ◄ ..............Cursor control buttons

CUSTOM ..............Custom button

DISC ..............Disc button

RETURN ..............Return button

SEARCH .............Search button

#### (5C) Buttons for other convenient functions

1/13 · ~ 10/22 0 ...Disc and track number setting (digit) buttons

11/23 C ...............Functions as "clear" button to cancel CD program steps. Also used to erase all discs selected with the custom mode.

TRACK SET ..............Track set button

DISC SET ...............Disc set button

PGM .............Program set button

RND .............Random play button

REP .............Repeat play button

MODE .............CD play mode button

12/24 TIME .............Time button

### ⑥ TIMER operation buttons

WAKE UP TIMER ▸ .........Use to select wake-up 1 or wake-up 2 timer functions.

SLEEP ................Sleep timer

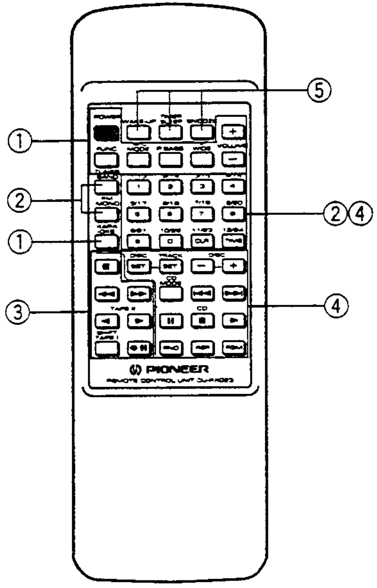
SNOOZE ...............5-minute snooze timer (restarts unit 5 minutes after wake-up timer operates; does not function during normal play).

### ⑦ RESET button

This is the remote control unit's system reset button. If the remote control unit's display appears abnormal during use or when exchanging batteries, and the main unit no longer responds to commands, press this button to reset the remote control unit.
**Disc titles stored in the memory are preserved even when the RESET button is pressed.**

---

- For U.S. and Multi-voltage models



The illustration shows Multi-voltage model.

### ① System function buttons

POWER .............Power switch (ON/STANDBY)

FUNC .............Function select button

SFC MODE .............Sound field selector

P BASS .............Bass boost mode button

ST WIDE .............Stereo wide pattern selector button

VOLUME + / − .............Main volume

KARA-OKE .............One-touch karaoke button (Multi-voltage model only)

### ② TUNER operation buttons

TUNER BAND .............FM/AM selector

FM MONO .............FM stereo/mono selector (operates only during FM stereo reception)

1/13 1 ~ 12/24 TIME ...Station memory call buttons

### ③ TAPE I, TAPE II operation buttons

■ ..............Stop button

◄◄ ►► ......Fast forward, rewind button

TAPE II ◄ ► ......Play buttons

SHIFT TAPE I ..............To operate TAPE I, press the desired deck operation button while pressing this button. (Except for the Record/pause (●II) button)

●II ..............Record/pause button

### ④ CD operation buttons

**Buttons for ordinary operations**

DISC − + ......Disc select button

I◄◄ ►►I ......Track search button

II ..............Pause button

CD ■ ..............Stop button

► ..............Play button

**Buttons for other convenient functions**

1/13 1 ~ 10/22 0 ...Disc and track number setting (digit) buttons

11/23 CLR ..............Functions as "clear" button to cancel CD program steps. Also used to erase all discs selected with the custom mode.

DISC SET ..............Disc set button

TRACK SET ..............Track set button

CD MODE ..............CD play mode button

RND ..............Random play button

REP ..............Repeat play button

PGM ..............Program set button

12/24 TIME ..............Time button

### ⑤ TIMER operation buttons

WAKE-UP ..............Use to select wake-up 1 or wake-up 2 timer functions.

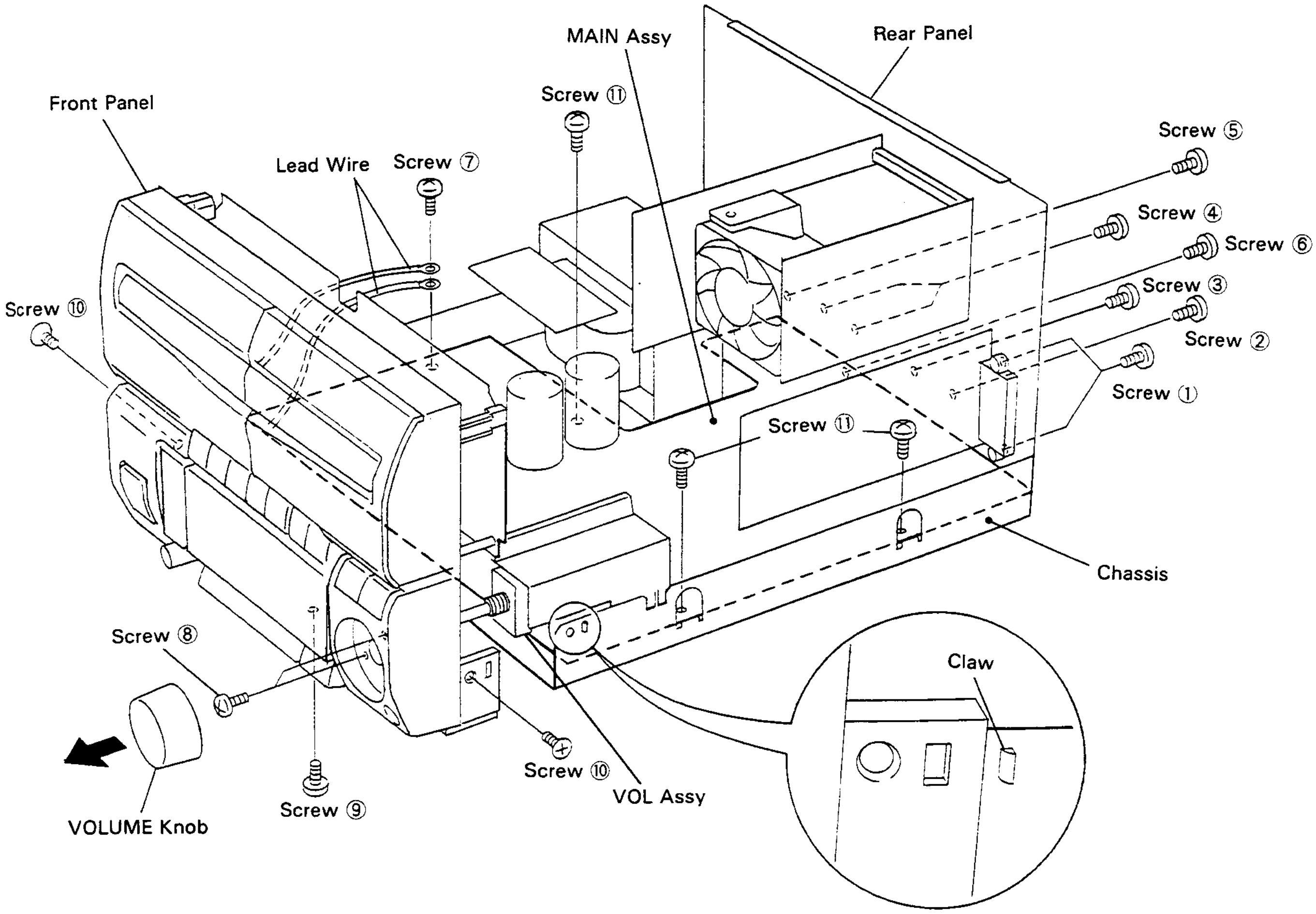
TIMER SLEEP ..............Sleep timer

SNOOZE ..............5-minute snooze timer (restarts unit 5 minutes after wake-up timer operates; does not function during normal play).

# 1.4 DISASSEMBLY

## ■ MAIN ASSY

1. Remove the bonnet case.
2. Remove the Rear Panel Section
   - ① Remove the screw ① (2 screws) of the antenna terminal.
   - ② Remove the screw ② (1 screw) of the pin jack (MD/AUX).
   - ③ Remove the screw ③ (1 screw) of the connector for CD.
   - ④ Remove the screw ④ (2 screws) of the front speaker terminal.
   - ⑤ Remove the screw ⑤ (1 screw) of the pin jack for surround speaker. (SD and HB types only)
   - ⑥ Remove the screw ⑥ (1 screw) between the chassis and rear panel.
3. Remove the Front Panel Section
   - ⑦ Remove the screw ⑦ (1 screw) holding the lead wire from the cassette mechanism unit and MIC assy.
   - ⑧ Remove the VOLUME knob on the front panel, and remove the screw ⑧ (2 screws).
   - ⑨ Remove the screw ⑨ (1 screw) between the chassis and front panel bottom.
   - ⑩ Remove the screw ⑩ (1 screw each side) between the chassis and front panel left/right-side.
   - ⑪ Remove the front panel from the chassis. (Be careful of the craw on the left and right sides).
4. Remove the screw ⑪ (3 screws) holding the MAIN assy.


MAIN Assy
Rear Panel
Front Panel
Screw ⑪
Screw ⑤
Lead Wire
Screw ⑦
Screw ④
Screw ⑥
Screw ⑩
Screw ③
Screw ②
Screw ①
Screw ⑪
Chassis
Screw ⑧
Claw
Screw ⑩
VOL Assy
Screw ⑨
VOLUME Knob

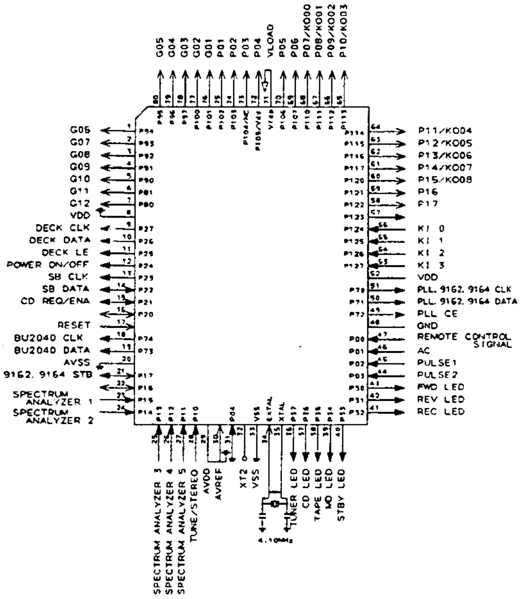
# 1.5 IC INFORMATION

- *The information shown in the list is basic information and may not correspond exactly to that shown in the schematic diagrams.*

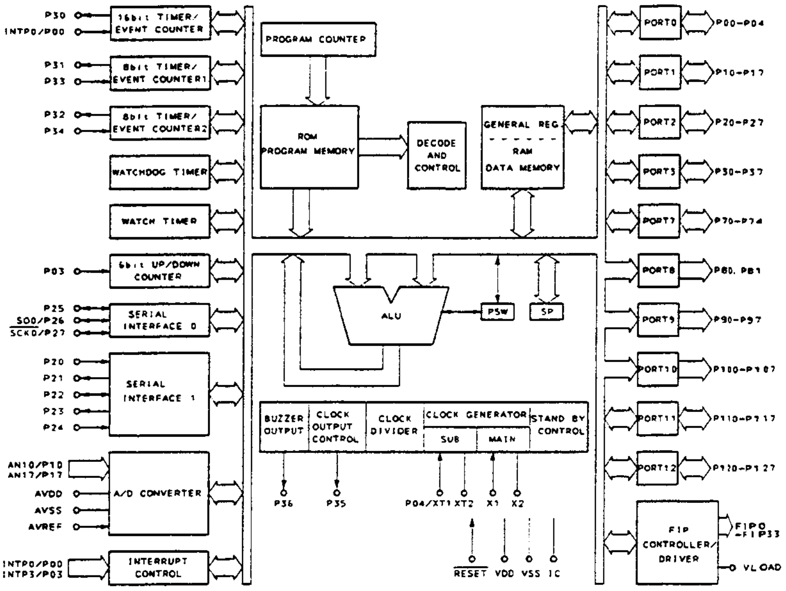
## ■ PD4523A (IC1901 : DISPLAY ASSY)

### ● System Control CPU

● Pin Assignment (Top View)


G05
G04
G03
G02
G01
P01
P02
P03
P04
VLOAD
P05
P06
P07/KO00
P08/KO01
P09/KO02
P10/KO03
G06
G07
G08
G09
G10
G11
G12
VDD
DECK CLK
DECK DATA
DECK LE
POWER ON/OFF
SB CLK
SB DATA
CD REQ/ENA
RESET
BU2040 CLK
BU2040 DATA
AVSS
9162. 9164 STB
SPECTRUM ANALYZER 1
SPECTRUM ANALYZER 2
P11/KO04
P12/KO05
P13/KO06
P14/KO07
P15/KO08
P16
P17
KI 0
KI 1
KI 2
KI 3
VDD
PLL. 9162. 9164 CLK
PLL. 9162. 9164 DATA
PLL CE
GND
REMOTE CONTROL SIGNAL
AC
PULSE1
PULSE2
FWD LED
REV LED
REC LED
SPECTRUM ANALYZER 3
SPECTRUM ANALYZER 4
SPECTRUM ANALYZER 5
TUNE/STEREO
AVDD
AVREF
XT2
VSS
TUNER LED
CD LED
TAPE LED
MD LED
STBY LED
4.10MHz

● Block Diagram


P30
INTP0/P00
16bit TIMER/ EVENT COUNTER
P31
P33
8bit TIMER/ EVENT COUNTER1
P32
P34
8bit TIMER/ EVENT COUNTER2
WATCHDOG TIMER
WATCH TIMER
P03
6bit UP/DOWN COUNTER
P25
SO0/P26
SCK0/P27
SERIAL INTERFACE 0
P20
P21
P22
P23
P24
SERIAL INTERFACE 1
AN10/P10
AN17/P17
AVDD
AVSS
AVREF
A/D CONVERTER
INTP0/P00
INTP3/P03
INTERRUPT CONTROL
PROGRAM COUNTER
ROM PROGRAM MEMORY
DECODE AND CONTROL
GENERAL REG
RAM DATA MEMORY
ALU
PSW
SP
BUZZER OUTPUT
CLOCK OUTPUT CONTROL
CLOCK DIVIDER
CLOCK GENERATOR
SUB
MAIN
STAND BY CONTROL
P36
P35
P04/XT1
XT2
X1
X2
RESET
VDD
VSS
IC
PORT0
P00-P04
PORT1
P10-P17
PORT2
P20-P27
PORT3
P30-P37
PORT7
P70-P74
PORT8
P80, P81
PORT9
P90-P97
PORT10
P100-P107
PORT11
P110-P117
PORT12
P120-P127
FIP CONTROLLER/ DRIVER
FIP0 -FIP33
VLOAD

● Pin Function

| No. | Name | Function | I/O | Description |
|---|---|---|---|---|
| 1 | FIP6 | 6G | P | FL grid output |
| 2 | FIP5 | 7G | | |
| 3 | FIP4 | 8G | | |
| 4 | FIP3 | 9G | | |
| 5 | FIP2 | 10G | | |
| 6 | FIP1 | 11G | | |
| 7 | FIP0 | 12G | | |
| 8 | $V_{DD}$ | $V_{DD}$ | – | BACKUP +5V |
| 9 | $\overline{\text{SCK0}}$ | DECK CLK | N | DECK CLK (M66320) |
| 10 | SO0 | DECK DATA | N | DECK DATA (M66320) |
| 11 | P25 | DECK LE | C | DECK LE (M66320) |
| 12 | P24 | POWER ON/OFF | C | POWER ON/OFF |
| 13 | P23 | SB CLK | C | System bus CLK |
| 14 | P22 | SB DATA | C | System bus DATA |

| No. | Name | Function | I/O | Description |
|---|---|---|---|---|
| 15 | P21 | CD REQ/ENA | C | System bus CD REQ/ENA |
| 16 | P20 | – | C | Not used |
| 17 | $\overline{\text{RESET}}$ | RESET | – | Reset input |
| 18 | P74 | BU2040 CLK | N | BU2040 CLK |
| 19 | P73 | BU2040 DATA | N | BU2040 DATA |
| 20 | AVss | – | – | Connected to Vss. |
| 21 | P17 | – | C | Not used |
| 22 | P16 | – | | |
| 23 | ANI5 | – | A/D | Spectrum analyzer input1 (100Hz) |
| 24 | ANI4 | – | A/D | Spectrum analyzer input2 (330Hz) |
| 25 | ANI3 | – | A/D | Spectrum analyzer input3 (1kHz) |
| 26 | ANI2 | – | A/D | Spectrum analyzer input4 (3.3kHz) |
| 27 | ANI1 | – | A/D | Spectrum analyzer input5 (10kHz) |

| No. | Name | Function | I/O | Description |
|---|---|---|---|---|
| 28 | ANI0 | TUNE/ STEREO | A/D | TUNE/STEREO status discrimination input |
| 29 | AVDD | AVDD | – | Connected to +5V. |
| 30 | AVREF | AVREF | – | |
| 31 | P04 | – | I | Not used (Connected to GND.) |
| 32 | XT2 | – | O | Open |
| 33 | Vss | – | – | GND |
| 34 | X1 | – | I | Connected to Oscillator (4.19MHz). |
| 35 | X2 | – | O | |
| 36 | P37 | TUNER LED | C | Function LED TUNER |
| 37 | P36 | CD LED | C | Function LED CD |
| 38 | P35 | TAPE LED | C | Function LED TAPE |
| 39 | P34 | MD LED | C | Function LED MD |
| 40 | P33 | STBY LED | C | Function LED $\overline{\text{STAND BY}}$ |
| 41 | P32 | REC LED | C | Function LED REC |
| 42 | P31 | REV LED | C | Function LED REV |
| 43 | P30 | FWD LED | C | Function LED FWD |
| 44 | P03 | PULSE2 | I | TAPE2 reel pulse input |
| 45 | P02 | PULSE1 | I | TAPE1 reel pulse input |
| 46 | INTP1 | AC | I | AC input |
| 47 | INTP0 | REM | I | Remote control signal input |
| 48 | IC | – | – | Connected to GND. |
| 49 | P72 | PLL CE | N | PLL CE |
| 50 | P71 | PLL • 9162 • 9164 DATA | N | PLL • 9162 • 9164 DATA |
| 51 | P70 | PLL • 9162 • 9164 CLK | N | PLL • 9162 • 9164 CLK |
| 52 | VDD | – | – | Connected to +5V. |
| 53 | P127 | KI3 | I | Key input 3 |
| 54 | P126 | KI2 | I | Key input 2 |

| No. | Name | Function | I/O | Description |
|---|---|---|---|---|
| 55 | P125 | KI1 | I | Key input 1 |
| 56 | P124 | KI0 | I | Key input 0 |
| 57 | P123 | 9162 9164 STB | P | 9162 9164 STB |
| 58 | FIP28 | P17 | P | Segment output |
| 59 | FIP27 | P16 | | |
| 60 | FIP26 | P15/KO8 | P | FL segment and key scan output |
| 61 | FIP25 | P14/KO7 | P | |
| 62 | FIP24 | P13/KO6 | P | |
| 63 | FIP23 | P12/KO5 | P | |
| 64 | FIP22 | P11/KO4 | P | |
| 65 | FIP21 | P10/KO3 | P | |
| 66 | FIP20 | P9/KO2 | P | |
| 67 | FIP19 | P8/KO1 | P | |
| 68 | FIP18 | P7/KO0 | P | |
| 69 | FIP17 | P6 | P | FL segment |
| 70 | FIP16 | P5 | P | |
| 71 | VLOAD | – | – | Connected to –30V. |
| 72 | FIP15 | P4 | P | Segment output |
| 73 | FIP14 | P3 | P | |
| 74 | FIP13 | P2 | P | |
| 75 | FIP12 | P1 | P | |
| 76 | FIP11 | 1G | P | |
| 77 | FIP10 | 2G | P | |
| 78 | FIP9 | 3G | P | |
| 79 | FIP8 | 4G | P | |
| 80 | FIP7 | 5G | P | |

*Note)*

*I : Input*

*A/D : Analog Input*

*O : Cmos Output*

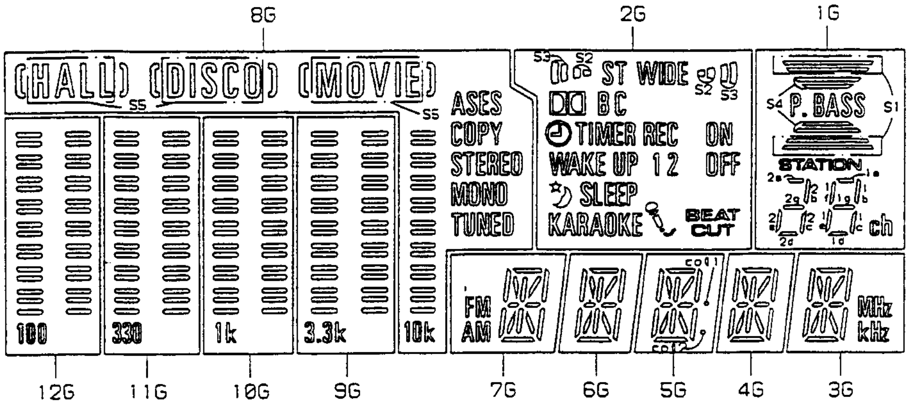
*N : Nch Open Drain Output*

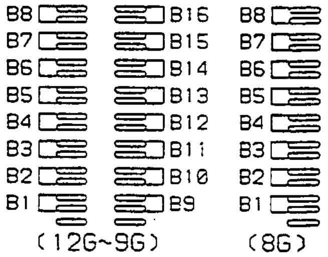
*P : Pch Open Drain Output*

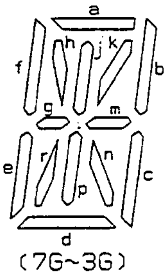
## 1.6 FL INFORMATION

### ■ AAV7006 (V1701 : DISPLAY ASSY)

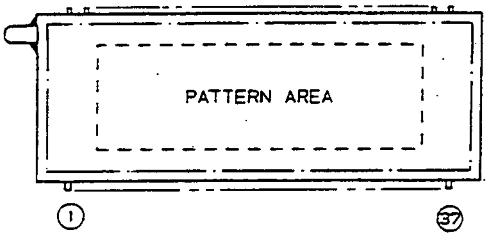
- **FL TUBE**
- Grid Assignment


8G
2G
1G
HALL
DISCO
MOVIE
S5
S5
S3
S2
ST WIDE
DD BC
S2 S3
TIMER REC
ON
WAKE UP 1 2
OFF
SLEEP
KARAOKE
BEAT CUT
ASES
COPY
STEREO
MONO
TUNED
S4
P. BASS
S1
STATION
1.
2.
ch
100
330
1k
3.3k
10k
FM
AM
col1
col2
MHz
kHz
12G
11G
10G
9G
7G
6G
5G
4G
3G


B8
B7
B6
B5
B4
B3
B2
B1
B16
B15
B14
B13
B12
B11
B10
B9
(12G~9G)
(8G)


a
h
j
k
f
b
g
m
e
r
p
n
c
d
(7G~3G)

- Pin Assignment


PATTERN AREA
①
㊲

- Pin Connection

| PIN NO. | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CONNECTION | F1 | F1 | NP | NP | 12G | 11G | 10G | 9G | 8G | 7G | 6G | 5G | 4G | 3G | 2G | 1G | P1 | P2 | P3 |

| PIN NO. | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 | 34 | 35 | 36 | 37 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CONNECTION | P4 | P5 | P6 | P7 | P8 | P9 | P10 | P11 | P12 | P13 | P14 | P15 | P16 | P17 | NP | NP | F2 | F2 |

NOTE
1) F1,F2 ---- Filament
2) NP -------- No pin
3) DL -------- Datum Line
4) 1G~12G ---- Grid

- Anode Connection

| | 12G | 11G | 10G | 9G | 8G | 7G | 6G | 5G | 4G | 3G | 2G | 1G |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| P1 | B1 | B1 | B1 | B1 | B1 | AM | – | col2 | – | kHz | KARAOKE 🎤 | 1d |
| P2 | B2 | B2 | B2 | B2 | B2 | n | n | n | n | n | OFF | 1e |
| P3 | B3 | B3 | B3 | B3 | B3 | e | e | e | e | e | 1 | 1c |
| P4 | B4 | B4 | B4 | B4 | B4 | g | g | g | g | g | ON | 1g |
| P5 | B5 | B5 | B5 | B5 | B5 | b | b | b | b | b | ⊙ TIMER | 1f |
| P6 | B6 | B6 | B6 | B6 | B6 | k | k | k | k | k | DD | 1b |
| P7 | B7 | B7 | B7 | B7 | B7 | j | j | j | j | j | S3 | 1a |
| P8 | B8 | B8 | B8 | B8 | B8 | a | a | a | a | a | ST WIDE | S4 |
| P9 | B9 | B9 | B9 | B9 | [(HALL)] | d | d | d | d | d | BEAT CUT | 2d |
| P10 | B10 | B10 | B10 | B10 | [(DISCO)] | p | p | p | p | p | ☾ SLEEP | 2e |
| P11 | B11 | B11 | B11 | B11 | [(MOVIE)] | r | r | r | r | r | 2 | 2c |
| P12 | B12 | B12 | B12 | B12 | TUNED | c | c | c | c | c | WAKE UP | 2g |
| P13 | B13 | B13 | B13 | B13 | MONO | m | m | m | m | m | REC | STATION ch |
| P14 | B14 | B14 | B14 | B14 | STEREO | f | f | f | f | f | B | 2b |
| P15 | B15 | B15 | B15 | B15 | COPY | h | h | h | h | h | S2 | 2a |
| P16 | B16 | B16 | B16 | B16 | ASES | FM | – | col1 | – | MHz | C | S1 |
| P17 | 100 | 330 | 1K | 3.3K | 10K S5 | – | – | – | – | – | – | P. BASS |

# 1.7 ADJUSTMENT

## (1). TUNER SECTION

### FM Tuner Section

- Set the mode selector to FM BAND.
- Connect the wiring as shown in Fig. 1−1.

| Step No. | Adjustment Title | FM SG (1kHz, ±75kHz dev.) | | Reception Frequency Display | Adjustment Location | Specifications |
|---|---|---|---|---|---|---|
| | | Frequency (MHz) | Level (dB$\mu$V) | | | |
| 1 | Center Adjustment | 98<br>Non modulation | 80 or more | 98MHz | L6207 | Adjust so that the DC voltage between Pin 4 and Pin 28 of IC6201 becomes 0V±50mV. |
| 2 | Front End Sencitivity | 98 | 0−30 | 98MHz | L6104<br>T6101<br>L6102 | After adjusting L6104 so that the DC voltage of the Pin 12 of IC6201 (S-meter) becomes at maximum level, adjust T6101. |
| 3 | TUNED IND. Lighting Level | 98 | 15±2 | 98MHz | VR6201 | Adjust so that the indicator of TUNED IND. starts to light up. |

*Notes:*

- *Before adjusting, make sure there is no gap between L6101 and L6102. If there is a gap between them, bring them into contact with each other first, and then make adjustments.*
- *Make indicator adjustments in order of AM → FM.*

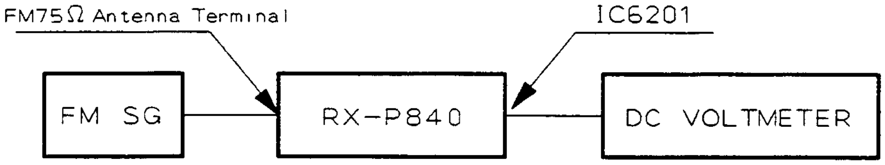


Fig. 1−1 FM Adjustment Connection Diagram

### AM Tuner Section

- Set the mode selector to AM BAND.
- Connect the wiring as shown in Fig. 1−2.

| Step No. | Adjustment Title | AM SG (400Hz, 30% Mod.) | | Reception Frequency Display | Adjustment Location | Specifications |
|---|---|---|---|---|---|---|
| | | Frequency (kHz) | Level (dB$\mu$V/m) | | | |
| 1 | TUNED IND. Lighting Level | 999 | 47±2 | 999kHz | VR6202 | After adjusting VR6202 so that it is illuminated when the ANT. input level is within 45±3 dB$\mu$V/m, confirm that it is extinguished at or below 40dB$\mu$V/m. |

*Note : When SD type is used, set the AM frequency step to 10kHz.*

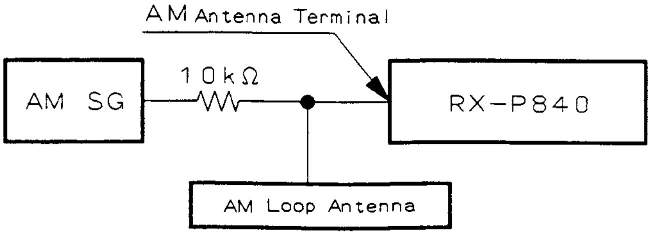


Fig. 1−2 AM (MW) Adjustment Connection Diagram

FM/AM TUNER MODULE

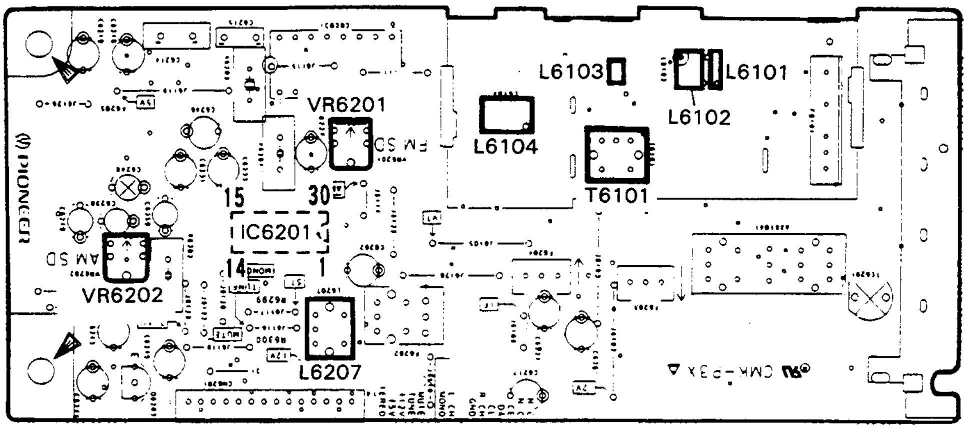


Fig. 1−3 Adjustment Points

## (2). POWER AMP MODULE SECTION (Refer to Fig. 2−1.)

### 1. Handling Precautions

- Since the heat sink and transistor metallic parts are connected to the Front Amp output, make sure they do not contact the GND (chassis) or other circuits.
- Since there is residual high voltage in the Power Amp Module Assy ±B1 (FRONT ASSY FOR 100W) even when the power is OFF, caution should be exercised. (If necessary, the voltage should be discharged).
- When handling the Power Amp Module Assy, make sure you do not touch the fan motor blade.

### 2. Adjustment and Confirmation of Idle Current

- Basically, the idle current needs to be confirmed when replacing a power transistor, driver transistor, or bias transistor, or when the entire split board Assy of the Power Amp Module Assy has been replaced.
- Make sure the heat sink has cooled sufficiently before measuring the idle current. (Temperature should be the same as room temperature; 25°C is ideal, if possible.)
- Idle current stipulated value: 3−50mA.

■ Front Amp Side (FRONT ASSY FOR 100W)

| Step | Measurement | Item | Remarks |
|---|---|---|---|
| 1 | Lch side | Insert a resistor (0.22Ω, 3W or more) in series in the connector CN7502 +B1 (or −B1) line (terminal No. 5 or 6). (Refer to Fig. 2−2.) | For measuring voltage at both sides of resistor |
| 2 | | Short both sides of C7524. | Do not operate Rch side. |
| 3 | | Turn the power ON, wait 6 seconds, and then measure the resistance voltage in Step 1. | Lch Idle current I=V/0.22 (Ω) |
| 4 | Rch side | ● Same as Step 1 above.<br>● Short both sides of C7523. | Do not operate Lch side. |
| 5 | | Turn the power ON under the above conditions, and after 6 seconds measure the resistance voltage in Step 1. | |
| 6 | —— | If the measured idle current is greater than 50mA, perform the following procedure. | |
| 7 | Lch side | Short between the Point Ⓐ pattern in Fig. 2−3 using solder. | Connect R7517 to R7515 in a parallel circuit. |
| 8 | Rch side | Short between the Point Ⓑ pattern in Fig. 2−3 using solder. | Connect R7518 to R7516 in a parallel circuit. |
| 9 | —— | After performing Steps 7 and 8, remeasure the idle current and confirm that it is below 50mA. | |

| Step | Measurement | Item | Remarks |
|---|---|---|---|
| 10 | —— | If the idle current is below 3mA, perform the following procedure. | |
| 11 | Lch side | Short between the point Ⓒ pattern in Fig.2−3 using solder. | Connect R7551 to R7519 in a parallel circuit. |
| 12 | Rch side | Short between the point Ⓓ pattern in Fig.2−3 using solder. | Connect R7552 to R7520 in a parallel circuit. |
| 13 | —— | After performing step Ⓒ and Ⓓ, remeasure the idle current and confirm that it is greater than 3mA (within 3−50mA). | |

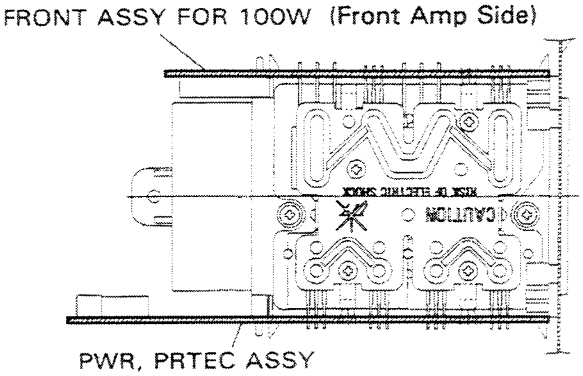

FRONT ASSY FOR 100W (Front Amp Side)
CAUTION
RISK OF ELECTRIC SHOCK
PWR, PRTEC ASSY

Fig. 2−1 POWER MOD. F100

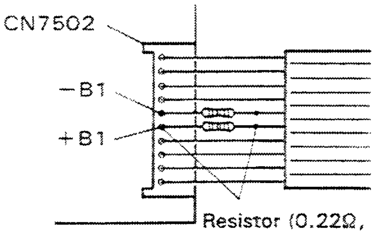

CN7502
−B1
+B1
Resistor (0.22Ω, 3W or more)

Fig. 2−2 FRONT ASSY FOR 100W

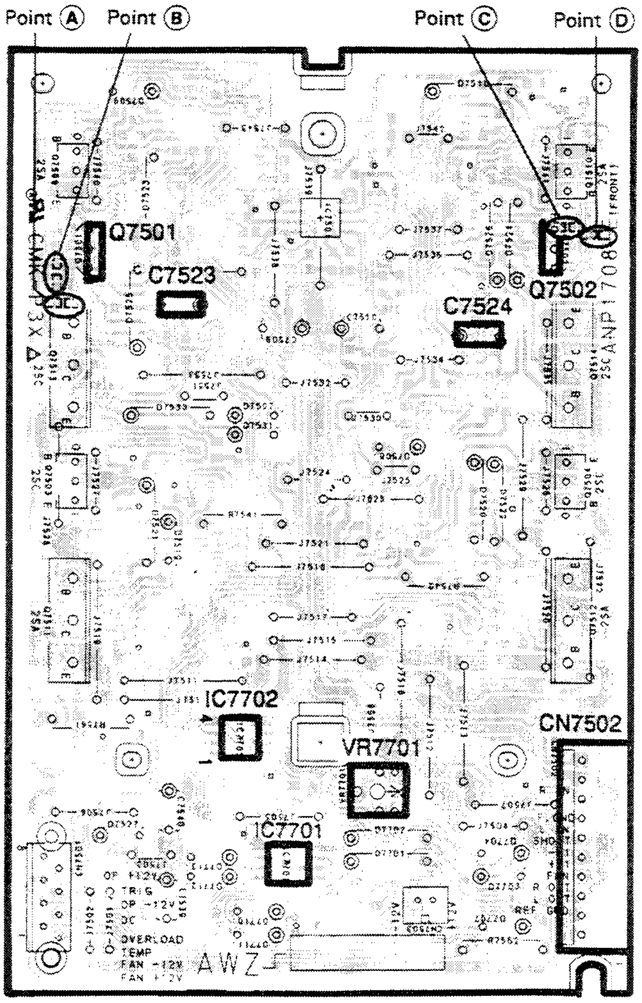

Point Ⓐ
Point Ⓑ
Point Ⓒ
Point Ⓓ
Q7501
C7523
C7524
Q7502
IC7702
VR7701
CN7502
IC7701
ANP1708
AWZ

Fig. 2−3 FRONT ASSY FOR 100W

## 3. Adjusting the Operating Temperature Setting of the Fan Motor (VR7701)

This adjustment is necessary when IC7403 (+12V regulator), Q7301 and Q7302 (temperature sensors), or VR7701 has been replaced, or when the entire split board Assy of the Power Amp Module Assy has been replaced.

### ■ Adjustment-Related Cautions

- Make sure the heat sink has sufficiently cooled (is the same as room temperature Ta.)
- Once the power has been turned ON, make measurements and adjustments as quickly as possible. (If too much time is taken, the heat sink temperature will rise, and the measurements will deviate from the Ta measurement point.)

### ■ Adjustment

1. Connect a voltmeter between TEMP and TP (or between IC7702 terminals No.3 and 2). (Refer to Figs. 2−3 and 2−6.)
2. Determine the fan motor operating temperature setting by means of the following formula. (Tolerance is within ±30mV.)

   Formula: (85°C − Ta) × 19 (mV)
   Ta: ambient temperature (°C)

3. Adjust VR7701 so that the voltage between TEMP and TP is the value obtained from the above formula.

   For example:
   when the room temperature is 25°C,
   set value = (85 − 25) × 19 (mV)
   = 1140mV (tolerance within ±30mV).

*Note:*
*Adjustment during service should be ±30mV, but if this value cannot be obtained with the measuring instruments used for adjustment, ±50mV is acceptable.*

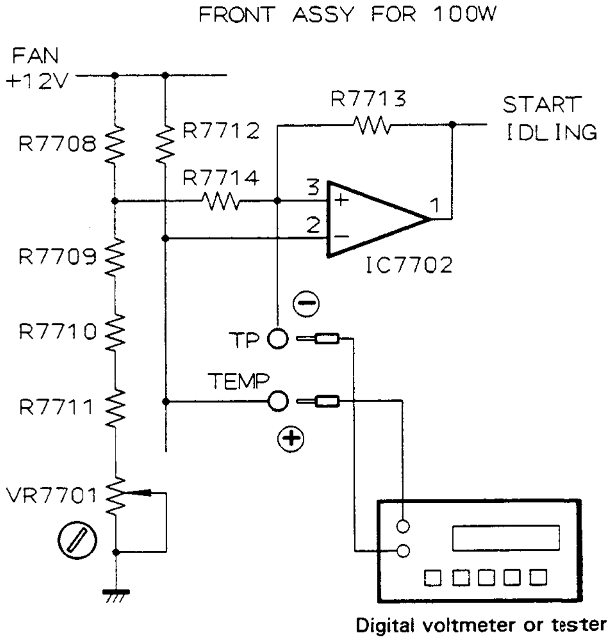


Fig. 2−6 Adjustment of Operating Temperature Setting of Fan Motor

## (3). CASSETTE DECK SECTION

- Adjustment points and test points are shown in Fig. 3−2 and Fig. 3−4.

### Mechanical Adjustment

- Set the TAPE function.
- Test tape: STD−301 (3kHz, 30min).

1. Tape Speed Adjustment

| No. | Mode | Test Tape | Adjusting Points | Measurement Points | Adjustment Procedure | Remarks |
|---|---|---|---|---|---|---|
| 1 | PLAY | STD−301 (Playback: 3kHz) | DECK Unit VR4111 | TAPE TEST POINT (Rch) (MAIN Assy) | Press the PLAY SW and adjust so that the reading becomes 3010Hz±10Hz. Confirm that wow & flutter level is below 0.2% (in the reverse direction, confirm that the reading is within 3010Hz±60Hz). | |

### Electrical Adjustment

Check the following before starting.

1. Confirm that the tape speed adjustment has been completed.
2. Clean the heads and demagnetize them using a head eraser.
3. Set the measurement level to 0 dBV = 1 Vrms.
4. Use the specified tape for adjustment. Use the labeled (A) side of the test tape.
   STD−331E: For playback adjustment
   STD−631: Normal blank tape
5. Provide yourself with the following measuring devides:
   - AC millivoltmeter
   - Low-frequency oscillator
   - Attenuator
   - Oscilloscope
6. Adjust both right and left channels unless otherwise specified.
7. Turn the DOLBY NR switch off unless otherwize specified.
8. Warm up the unit for several minutes before adjustment. In particular, be sure to warm up the unit in the REC/PLAY mode for 3 to 5 minutes before starting recording/playback frequency characteristics adjustment.
9. Always follow the indicated adjustment order. Otherwise, a complete adjustment may not be achieved.

Playback Adjustment (Decks I and II)

1. Head Azimuth Adjustment
2. Playback Level Adjustment

Recording Adjustment (Deck II)

1. Bias Oscillation Frequency Adjustment
2. Recording Level Adjustment.
3. Recording/playback Frequency Characteristics Adjustment
4. ALC Operation Check

**As the reference recording level is 250nwb/m for STD−331E, the recording level will be higher by 4 dB for STD−331B (160nwb/m). When adjusting, pay carefull attention to the type of tape used.*

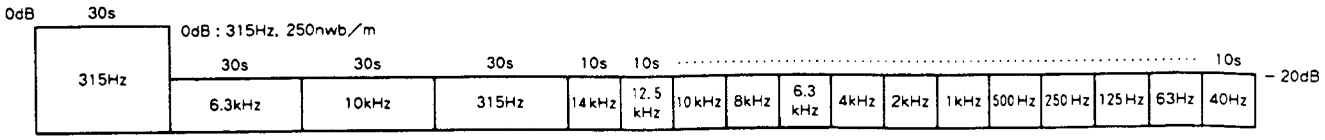


Fig. 3−1 STD−331E Test Tape

*Dolby noise reduction manufactured under license from Dolby Laboratories Licensing Corporation.*
*"DOLBY" and the double-D symbol ⅅ are trademarks of Dolby Laboratories Licensing Corporation.*

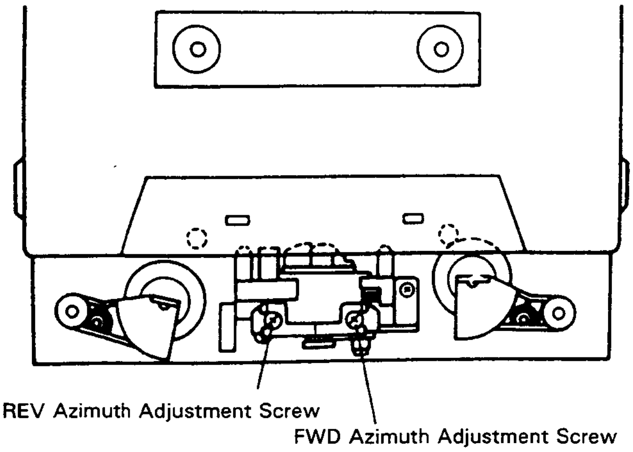
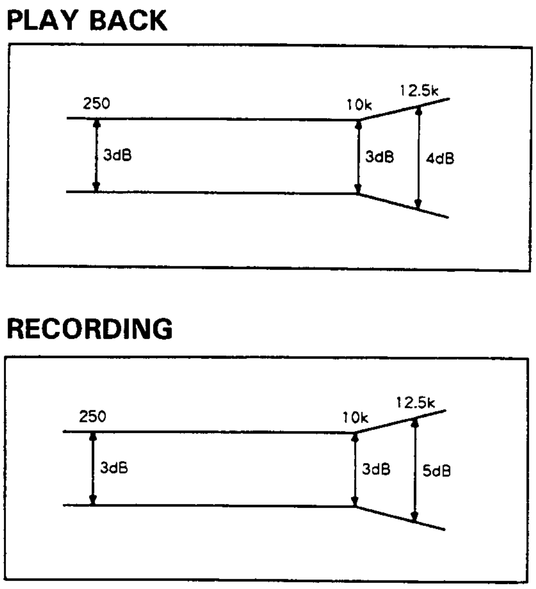


Fig. 3−2 Head Azimuth Adjustment


PLAY BACK

RECORDING

Fig. 3−3 Frequency Characteristics

## ● Playback Adjustment

- This unit is equipped with auto tape selector.
- Do not switch between forward and reverse operation with the screwdriver inserted.

### 1. Head Azimuth Adjustment

| Step | Tape Selector (AUTO) | Mode | Input Signal/ Test Tape | Adjusting Points | | Measurement Points | Adjustment Value | Remarks |
|---|---|---|---|---|---|---|---|---|
| 1 | NORMAL | PLAY | STD−331E test tape (Playback: 10kHz, −20dB) | Deck I | Head azimuth adjustment screw (Fig. 3−2) | TAPE TEST POINT (L, Rch) (MAIN Assy) | Max. playback signal level | After adjustment, apply lock paint to the head azimuth adjustment screw. |
| | | | | Deck II | | | | |

### 2. Playback Level Adjustment

- Since this adjustment determines playback Dolby NR level, perform it carefully.

| Step | Tape Selector (AUTO) | Mode | Input Signal/ Test Tape | Adjusting Points | | Measurement Points | Adjustment Value | Remarks |
|---|---|---|---|---|---|---|---|---|
| 1 | NORMAL | PLAY | STD−331E teat tape (Playback: 315Hz, 0dB) | Deck I | VR4201 (Lch)<br>VR4202 (Rch) | TAPE TEST POINT (L, Rch) (MAIN Assy) | −1.2 dBV | |
| | | | | Deck II | VR4203 (Lch)<br>VR4204 (Rch) | | | |

## ● Recording Adjustment

### 1. Bias Oscillation Frequency Adjustment

| Step | Tape Selector (AUTO) | Mode | Input Signal/ Test Tape | Adjusting Points | | Measurement Points | Adjustment Value | Remarks |
|---|---|---|---|---|---|---|---|---|
| 1 | NORMAL | REC | Load the STD−631 test tape and set the recording mode. | Deck I | — | — | Oscillation frequency to be 105.0kHz ±2kHz. | When the power is turned ON while the BAND button is depressed, the frequency will decrease 2−3 kHz. |
| | | | | Deck II | T4351 | Between Ⓐ point in Fig. 3−4 and GND. | | |

### 2. Recording Level Adjustment

| Step | Tape Selector (AUTO) | Mode | Input Signal/Test Tape | Adjusting Points | | Measurement Points | Adjustment Value | Remarks |
|---|---|---|---|---|---|---|---|---|
| 1 | NORMAL | REC | Input a 315Hz signal to the MD/AUX IN terminal and set the input selector to MD. | Deck I | Input signal level | TAPE TEST POINT (L, Rch) (MAIN Assy) | −5.2 dBV | |
| | | | | Deck II | | | | |
| 2 | NORMAL | REC/ PLAY | STD−631 test tape and record/playback the 315Hz signal. | Deck I | — | TAPE TEST POINT (L, Rch) (MAIN Assy) | Repeat recording, playback and adjustment until playback level of the 315Hz signal becomes −5.2dBV. | |
| | | | | Deck II | VR4301 (Lch)<br>VR4302 (Rch) | | | |

### 3. Recording/playback Frequency Characteristics Adjustment

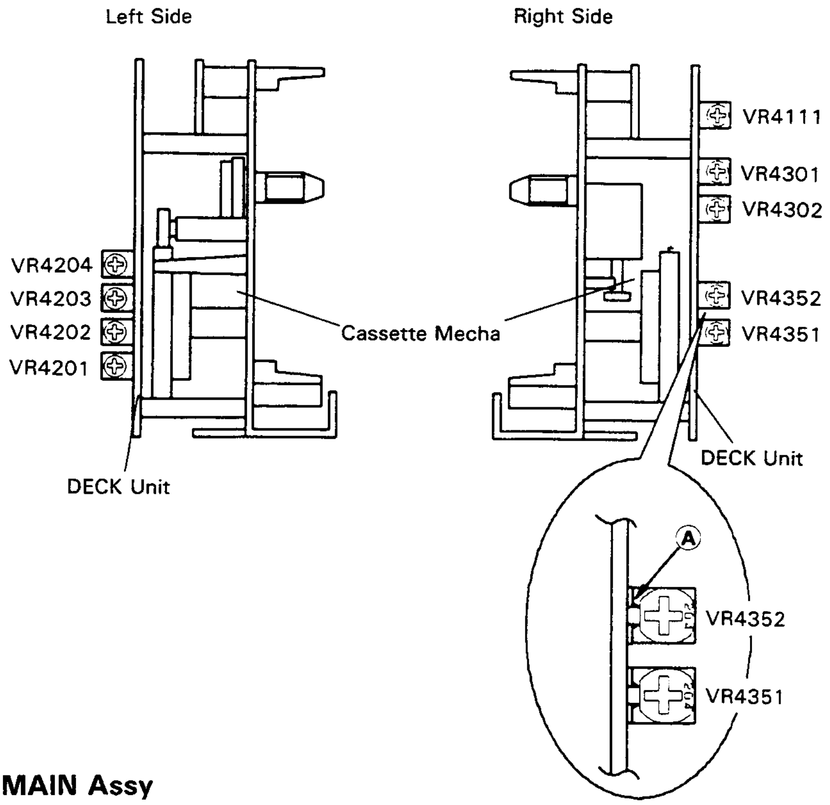
- Since this adjustment affects recording bias, prevent distortion from increasing due to underbias.

| Step | Tape Selector (AUTO) | Mode | Input Signal/Test Tape | Adjusting Points | | Measurement Points | Adjustment Value | Remarks |
|---|---|---|---|---|---|---|---|---|
| 1 | NORMAL | REC | Input a 315Hz signal to the MD/AUX IN terminal and set the input selector to MD. | Deck I | — | TAPE TEST POINT (L, Rch) (MAIN Assy) | −25.2 dBV | |
| | | | | Deck II | Input signal level | | | |
| 2 | NORMAL | REC/ PLAY | Load the STD−631 test tape and record/playback the 315Hz and 10kHz signals. (see the Note below) | Deck I | — | TAPE TEST POINT (L, Rch) (MAIN Assy) | Repeat adjustment until playback level of the 10kHz signal is within 0±0.5dB from that of the 315Hz signal. | |
| | | | | Deck II | VR4351 (Lch)<br>VR4352 (Rch) | | | |

*Note: Set to the same level used for the 315Hz input signal at step 1.*

### 4. ALC Operation Check

| Step | Tape Selector (AUTO) | Mode | Input Signal/Test Tape | Adjusting Points | Measurement Points | Adjustment Value | Remarks |
|---|---|---|---|---|---|---|---|
| 1 | NORMAL | REC | Input a 315Hz signal to the MD/AUX IN terminal and set the input selector to MD. | Input signal level | TAPE TEST POINT (L, Rch) (MAIN Assy) | −5.2 dBV | |
| 2 | | | | Set to a level +10dB above the input level at step 1. | | −2.2±2.5dBV | |


Left Side
Right Side
VR4111
VR4301
VR4302
VR4204
VR4203
VR4202
VR4201
VR4352
VR4351
Cassette Mecha
DECK Unit
DECK Unit
A
VR4352
VR4351

**MAIN Assy**

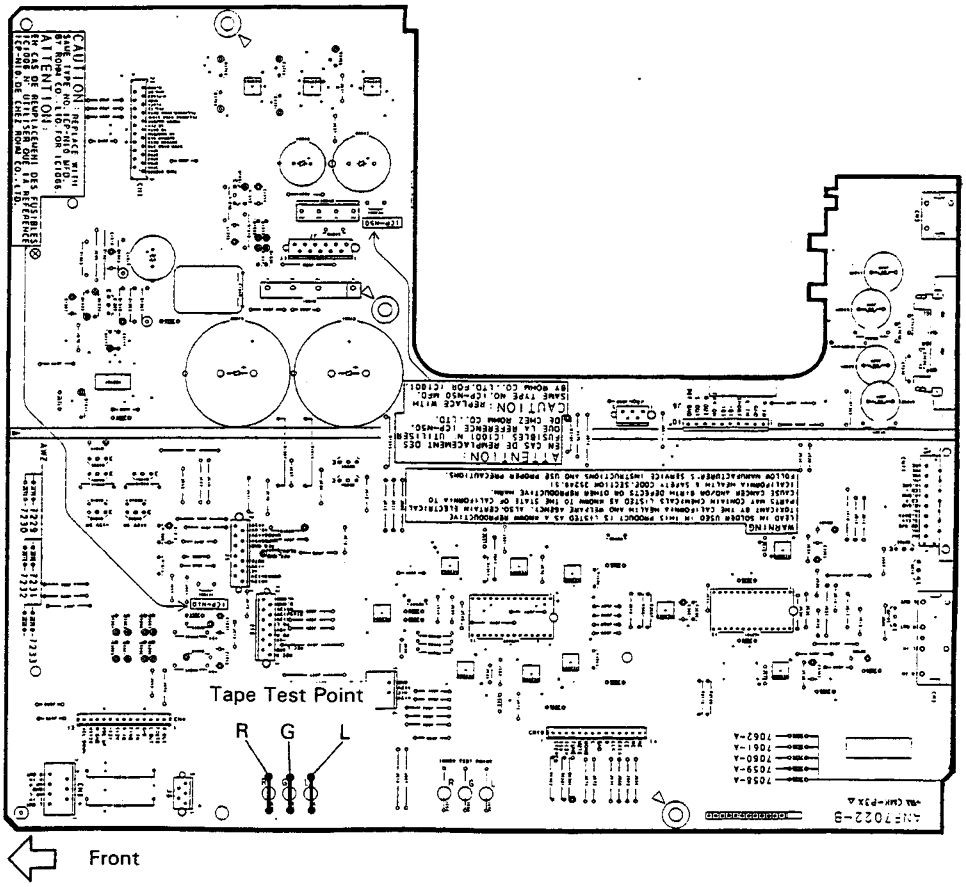

Tape Test Point
R
G
L
Front

Fig. 3－4 Adjusting Points and Measurement Points

# 1.8 PARTS LIST FOR PACKING AND EXPLODED VIEWS

*NOTES :*

- *Parts marked by "NSP" are generally unavailable because they are not in our Master Spare Parts List.*
- *The ⚠ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.*
- *Parts marked by "◉" are not always kept in stock. Their delivery time may be longer than usual or they may be unavailable.*

## (1). PACKING

### ■ CONTRAST OF SD, HB, KU AND KC TYPES

RX－P840/SD, HB, KU and KC have the same construction except for the following :

| Mark | No. | Description | Part No. | | | | Remarks |
|---|---|---|---|---|---|---|---|
| | | | RX－P840 | | | | |
| | | | SD | HB | KU | KC | |
| | 1 | Operating instruction (Spanish/Chinese) | ARC7018 | Not used | Not used | Not used | |
| | 1 | Operating instruction (English/French) | Not used | Not used | Not used | ARC7021 | |
| | 2 | Operating instruction (English) | ARB7012 | ARB7012 | ARB7012 | Not used | |
| | 3 | Remote control unit (CU－RX023) | AXD7015 | Not used | Not used | Not used | |
| | 3 | Remote control unit (CU－RX025) | Not used | AXD7020* | Not used | Not used | |
| | 3 | Remote control unit (CU－RX026) | Not used | Not used | AXD7016 | AXD7016 | |
| | 4 | Battery cover | AZA7034 | Not used | AZA7034 | AZA7034 | |
| | 7 | FM antenna | ADH1016 | ADH1019 | ADH1016 | ADH1016 | |
| | 11 | Packing case | AHD7059 | AHD7060 | AHD7056 | AHD7056 | |

*＊ : Refer to "(5). REMOTE CONTROL UNIT (CU－RX025)".*

### ■ PARTS LIST FOR SD TYPE

| Mark | No. | Description | Parts No. |
|---|---|---|---|
| | 1 | OPERATING INSTRUCTIONS (Spanish/Chinese) | ARC7018 |
| | 2 | OPERATING INSTRUCTIONS (English) | ARB7012 |
| | 3 | REMOTE CONTROL UNIT (CU－RX023) | AXD7015 |
| | 4 | BATTERY COVER | AZA7034 |
| NSP | 5 | BATTERY (R6P, AA) | AEX－010 |
| | 6 | CORD WITH PLUG | ADE7001 |
| | 7 | FM ANTENNA | ADH1016 |
| | 8 | LOOP ANTENNA (L8043) | ATB1012 |
| | 9 | FRONT PAD | AHA7027 |
| | 10 | REAR PAD LR | AHA7028 |
| | 11 | PACKING CASE | AHD7059 |
| | 12 | SHEET | AHG7003 |
| NSP | 13 | LITERATURE BAG | AHG－117 |

## (2). EXTERIOR

### ■ CONTRAST OF SD, HB, KU AND KC TYPES

RX−P840/SD, HB, KU and KC have the same construction except for the following :

| Mark | No. | Description | Part No. | | | | Remarks |
|---|---|---|---|---|---|---|---|
| | | | RX−P840 | | | | |
| | | | SD | HB | KU | KC | |
| | 3 | Front panel | AMB7089 | AMB7088 | AMB7088 | AMB7088 | |
| | 4 | FM/AM TUNER MODULE | AXQ1012 | AXQ1013 | AXQ1012 | AXQ1012 | |
| | 6 | CASSETTE MECHA MOD. BC | EXK2420 | EXK2420 | EXK2440 | EXK2420 | ∗1 |
| ⚠ | 7 | T8005 Power transformer (AC110V/120−127V/220V240V) | ATS7027 | Not used | Not used | Not used | |
| ⚠ | 7 | T8005 Power transformer (AC230V/240V) | Not used | ATS7026 | Not used | Not used | |
| ⚠ | 7 | T5005 Power transformer (AC120V) | Not used | Not used | ATS7025 | ATS7025 | |
| ⚠ | 8 | S8001 Voltage selector (AC110V/120−127V/220V240V) | AKX−507 | Not used | Not used | Not used | |
| ⚠ | 9 | FU2 Fuse (T2A/250V) | AEK−511 | Not used | Not used | Not used | |
| ⚠ | 9 | FU2 Fuse (T2.5A/250V) | Not used | AEK−512 | Not used | Not used | |
| ⚠ | 9 | FU2 Fuse (5A/125V) | Not used | Not used | AEK−308 | AEK−308 | |
| ⚠ | 10 | FU3 Fuse (T2A/250V) | AEK−511 | Not used | Not used | Not used | |
| ⚠ | 11 | AC power cord | ADG1051 | ADG1144 ∗2 | ADG1146 | ADG1146 | |
| ⚠ | 67 | Fuse (T5A/250V) | Not used | REK1029 ∗2 | Not used | Not used | For AC power cord |
| | 12 | Strain relief | AEC−882 | AEC−882 | AEP−113 | AEP−113 | |
| | 15 | Rear panel | ANC7104 | ANC7102 | ANC7099 | ANC7100 | |
| | 37 | Button | AAB7023 | Not used | Not used | Not used | |
| | 45 | MAIN assy | AWZ7233 | AWZ7231 | AWZ7230 | AWZ7230 | |
| | 46 | VOL assy | AWZ7236 | AWZ7234 | AWZ7327 | AWZ7327 | |
| | 47 | PRIMARY assy | AWZ7240 | AWZ7239 | AWZ7238 | AWZ7238 | |
| | 50 | DISPLAY assy | AWZ7245 | AWZ7244 | AWZ7243 | AWZ7243 | |
| | 52 | MIC assy | AWZ7267 | Not used | Not used | Not used | |

*∗1 : Concerning the differences between EXK2420 and EXK2440, refer to "(4). CASSETTE MECHA MOD. BC".*
*∗2 : Refer to "(2). EXTERIOR" in CHAPTER 2.*

### ■ PARTS LIST FOR SD TYPE

| Mark | No. | Description | Parts No. |
|---|---|---|---|
| | 1 | DOOR−L | AAN7033 |
| | 2 | DOOR−R | AAN7034 |
| | 3 | FRONT PANEL | AMB7089 |
| | 4 | FM/AM TUNER MODULE | AXQ1012 |
| | 5 | POWER MOD. F100 | AXQ1017 |
| | 6 | CASSETTE MECHA MOD. BC | EXK2420 |
| ⚠ | 7 | POWER TRANSFORMER (T8005) | ATS7027 |
| ⚠ | 8 | VOLTAGE SELECTOR (S8001) | AKX−507 |
| ⚠ | 9 | FUSE (T2A/250V, FU2) | AEK−511 |
| ⚠ | 10 | FUSE (T2A/250V, FU3) | AEK−511 |

| Mark | No. | Description | Parts No. |
|---|---|---|---|
| ⚠ | 11 | AC POWER CORD | ADG1051 |
| | 12 | STRAIN RELIEF | AEC−882 |
| ⚠ | 13 | FLEXIBLE CABLE (J1) | ADD1098 |
| NSP | 14 | CHASSIS | ANA7009 |
| | 15 | REAR PANEL | ANC7104 |
| | 16 | FOOT ASS'Y | PXA1201 |
| | 17 | BRACKET | ANG7002 |
| | 18 | DOOR SPRING (L) | ABH7006 |
| | 19 | DOOR SPRING (R) | ABH7007 |
| | 20 | KEEP PLATE | ABK7002 |

| Mark | No. | Description | Parts No. |
|---|---|---|---|
| NSP | 21 | GROUND LEAD | ADB1008 |
|  | 22 | NYLON BINDER | AEC−093 |
|  | 23 | NYLON RIVET | AEC−525 |
| NSP | 24 | PCB SPACER | AEC1371 |
|  | 25 | CATCHER | AEC7001 |
|  | 26 | BINDER | AEP−215 |
| NSP | 27 | PCB MOULD | AMR2115 |
| NSP | 28 | BRACKET | AMR7010 |
|  | 29 | SHIELD BOX | ANK7004 |
|  | 30 | DAMPER ASSY | AXA7001 |
|  | 31 | REC. PANEL | AAK7065 |
|  | 32 | DECK PANEL−L | AAK7066 |
|  | 33 | DECK PANEL−R | AAK7067 |
|  | 34 | LENS (POWER IND) | AAK7068 |
|  | 35 | NAME PLATE | RAN1013 |
|  | 36 | VOL BUTTON | AAB7022 |
|  | 37 | BUTTON | AAB7023 |
|  | 38 | POWER BUTTON | AAD7053 |
|  | 39 | DECK BUTTON | AAD7055 |
|  | 40 | TX BUTTON | AAD7056 |
|  | 41 | FUNCTION BUTTON | AAD7057 |
|  | 42 | TUNING BUTTON | AAD7058 |
|  | 43 | REC BUTTON ASSY | AAD7078 |
|  | 44 | BONNET | ANE7030 |
|  | 45 | MAIN ASSY | AWZ7233 |
|  | 46 | VOL ASSY | AWZ7236 |
|  | 47 | PRIMARY ASSY | AWZ7240 |
|  | 48 | CONNECT ASSY | AWZ7241 |
|  | 49 | HEADPHONE ASSY | AWZ7268 |
|  | 50 | DISPLAY ASSY | AWZ7245 |
|  | 51 | TAPE KEY ASSY | AWZ7246 |
|  | 52 | MIC ASSY | AWZ7267 |
|  | 53 | SCREW (STEEL) | ABA1095 |
|  | 54 | SCREW | BBZ30P080FMC |
|  | 55 | SCREW | BBZ30P080FNI |
|  | 56 | SCREW | ABA−298 |
|  | 57 | SCREW | BBZ30P140FMC |
|  | 58 | SCREW | BBZ40P060FZK |
|  | 59 | SCREW | BPZ26P080FMC |
|  | 60 | SCREW | CBZ30P080FMC |
|  | 61 | SCREW | VPZ30P080FMC |
|  | 62 | SCREW | ABA1006 |
|  | 63 | SCREW | ATZ26P080FMC |
|  | 64 | WASHER | WA32F100M50 |
|  | 65 | CUSHION | AEB7004 |
|  | 66 | CUSHION | AEB7016 |

## (3). POWER MOD. F100 (FOR ALL TYPES)

| Mark | No. | Description | Parts No. |
|---|---|---|---|
|  | 1 | FRONT ASSY FOR 100W | AWZ5389 |
|  | 2 | PWR, PRTEC ASSY | AWZ5392 |
|  | 3 | HEAT SINK (AL) | ANH7007 |
|  | 4 | BRACKET (MTL) | ANG1868 |
|  | 5 | SHEET | AEB1256 |
|  | 6 | MOLD A | AMR2594 |
|  | 7 | MOLD B | AMR2595 |
|  | 8 | SCREW (3 × 10) | ABA1021 |
|  | 9 | SCREW | BBZ30P140FZK |
|  | 10 | SCREW | BPZ30P350FZK |
|  | 11 | FAN MOTOR | AXM1019 |
|  | 12 | REGULATOR IC (IC7401) | MC7812CT |
|  | 13 | REGULATOR IC (IC7402) | NJM7912A |
|  | 14 | REGULATOR IC (IC7403) | MC7812CT |
|  | 15 | REGULATOR IC (IC7404) | MC7805CT |
|  | 16 | TRANSISTOR (Q7503) | 2SC4793 |
|  | 17 | TRANSISTOR (Q7504) | 2SC4793 |
|  | 18 | TRANSISTOR (Q7509) | 2SA1837 |
|  | 19 | TRANSISTOR (Q7510) | 2SA1837 |
| ⚠ | 20 | TRANSISTOR (Q7511) | 2SA1264N |
| ⚠ | 21 | TRANSISTOR (Q7512) | 2SA1264N |
| ⚠ | 22 | TRANSISTOR (Q7513) | 2SC3181N |
| ⚠ | 23 | TRANSISTOR (Q7514) | 2SC3181N |

## (4). CASSETTE MOD. BC (FOR ALL TYPES)

| Mark | No. | Description | Parts No. |
|---|---|---|---|
| | 1 | SPRING | EBH1467 |
| | 2 | SPRING | EBH1475 |
| | 3 | SPRING | EBL1021 |
| | 4 | SPRING | EBH1478 |
| | 5 | SPRING | EBH1483 |
| | 6 | SPRING | EBH1472 |
| | 7 | SPRING | EBH1496 |
| | 8 | SPRING | EBH1495 |
| | 9 | ARM | ENV1431 |
| | 10 | BRAKE | ENV1395 |
| | 11 | ARM | ENV1394 |
| | 12 | GEAR | ENV1393 |
| | 13 | PULLEY | ENV1291 |
| | 14 | REEL | ENV1385 |
| | 15 | GEAR | ENV1383 |
| | 16 | REEL | ENV1384 |
| | 17 | ARM | ENV1400 |
| | 18 | BUSH | ENV1386 |
| | 19 | ARM | ENV1403 |
| | 20 | LIMITER UNIT | EXA1349 |
| | 21 | FLYWHEEL UNIT | EXA1330 |
| | 22 | FLYWHEEL UNIT | EXA1329 |
| | 23 | ROLLER UNIT | EXA1352 |
| | 24 | ROLLER UNIT | EXA1353 |
| | 25 | FLYWHEEL UNIT | EXA1322 |
| | 26 | FLYWHEEL UNIT | EXA1321 |
| | 27 | SHAFT | ELA1332 |
| | 28 | SPRING | EBH1468 |
| | 29 | SOLENOID | EXP1011 |
| | 30 | ARM UNIT | EXA1372 |
| | 31 | ARM UNIT | EXA1371 |
| | 32 | BRACKET | ENC1357 |
| | 33 | BRACKET | AZN7094 |
| | 34 | BELT | ENT1033 |
| | 35 | BELT | ENT1032 |
| | 36 | CHASSIS UNIT | EXA1348 |
| | 37 | HEAD BASE ASSY | EXX1031 |
| | 38 | MOTOR ASSY | EXX1030 |
| | 39 | HEAD BASE ASSEMBLY | EXX1029 |
| | 40 | SUB COMPLEX PCB | ENX1026 |
| | 41 | SUB COMPLEX PCB | ENX1022 |
| | 42 | DECK UNIT | EWM1002 |
| | 43 | SCREW | BSZ20P035FMC |
| | 44 | SCREW | PMS26P025FUC |
| | 45 | SCREW | BSZ20P030FMC |
| | 46 | SCREW | BBZ26P080FMC |
| | 47 | WASHER | EBF1028 |
| | 48 | WASHER | EBF1027 |
| | 49 | SWITCH (AR−R) | ESN1009 |
| | 50 | SWITCH (CrO2) | ESN1009 |
| | 51 | SWITCH (AR−F) | ESN1009 |
| | 52 | SWITCH (CrO2) | ESN1009 |
| | 53 | SWITCH (HALF) | ESG1003 |
| | 54 | CONNECTOR (15P) | EKS1012 |
| | 55 | CONNECTOR (7P) | EKS1017 |
| | 56 | PHOTO INTERRUPTER | ON1004 |
| | 57 | LEAD WIRE | EDD1012 |
| | 58 | RESISTOR | ERD25T561S |
| | 59 | SCREW (For AZIMUTH) | EBA1034 |
| | 60 | CASSETTE MECHA UNIT (For EXK2420) | EXA1347 |
| | 60 | CASSETTE MECHA UNIT (For EXK2440) | EXA1362 |
| | 61 | SPRING | EBL1019 |
| | 62 | HEAD UNIT | EXA1316 |
| | 63 | HEAD UNIT | EXA1317 |
| | 64 | SPRING | EBH1473 |
| | 65 | SPRING | EBH1474 |
| | 66 | SPRING | EBH1476 |
| | 67 | SPRING | EBH1479 |
| | 68 | LEVER | ENC1349 |
| | 69 | SCREW | EBA1035 |
| | 70 | SCREW | BBZ20P060FMC |

## (5). REMOTE CONTROL UNIT (CU−RX025) (HB TYPE)

| Mark | No. | Description | Parts No. |
|---|---|---|---|
| | 1 | SLIDE COVER | AZA7038 |
| | 2 | CASE B | AZA7040 |
| | 3 | CASE A ASSY | AZA7042 |
| | 4 | FILTER | AZA1355 |
| | 5 | PCB ASSY | AZW7060 |
| | 6 | BATTERY SPRING | PZB1004 |
| | 7 | TERMINAL (A) | PZK1003 |
| | 8 | TERMINAL (B) | PZK1004 |
| | 9 | RUBBER SHEET | AZA7044 |
| | 10 | LCD | PZA1013 |
| | 11 | CONNECTOR | PZK1005 |
| | 12 | LCD SPACER | PZN1017 |
| | 13 | SCREW | PTZ20P050FMC |
| | 14 | SCREW | CTZ20P080FMC |

# 1.9 PCB PARTS LIST

*NOTES :*

- *Parts marked by "NSP" are generally unavailable because they are not in our Master Spare Parts List.*
- *The ⚠ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.*
- *Parts marked by "◉" are not always kept in stock. Their delivery time may be longer than usual or they may be unavailable.*
- *When ordering resistors, first convert resistance values into code form as shown in the following examples.*

*Ex. 1 When there are 2 effective digits (any digit apart from 0), such as 560 ohm and 47k ohm (tolerance is shown by J = 5%, and K = 10%).*

*560Ω → 56 × $10^1$ → 561 ........................ RD1/8PM $\boxed{5}\boxed{6}\boxed{1}$ J*
*47kΩ → 47 × $10^3$ → 473 ........................ RD1/4PS $\boxed{4}\boxed{7}\boxed{3}$ J*
*0.5Ω → 0R5 ............................................ RN2H $\boxed{0}\boxed{R}\boxed{5}$ K*
*1Ω → 010 ............................................ RS1P $\boxed{0}\boxed{1}\boxed{0}$ K*

*Ex. 2 When there are 3 effective digits (such as in high precision metal film resistors).*

*5.62kΩ → 562 × $10^1$ → 5621 .................. RM1/4PC $\boxed{5}\boxed{6}\boxed{2}\boxed{1}$ F*

## ■ LIST OF WHOLE PCB ASSEMBLIES

| Mark | Symbol & Description | Part No. | | | | Remarks |
|---|---|---|---|---|---|---|
| | | RX−P840 | | | | |
| | | SD | HB | KU | KC | |
| | AF ass'y | AWK7062 | AWK7060 | AWK7059 | AWK7059 | |
| | ├─ MAIN assy | AWZ7233 | AWZ7231 | AWZ7230 | AWZ7230 | |
| | ├─ VOL assy | AWZ7236 | AWZ7234 | AWZ7327 | AWZ7327 | |
| | ├─ PRIMARY assy | AWZ7240 | AWZ7239 | AWZ7238 | AWZ7238 | |
| | ├─ CONNECT assy | AWZ7241 | AWZ7241 | AWZ7241 | AWZ7241 | |
| | └─ HEADPHONE assy | AWZ7268 | AWZ7268 | AWZ7268 | AWZ7268 | |
| NSP | COMPLEX ass'y | AWM7089 | AWM7088 | AWM7087 | AWM7087 | |
| | ├─ DISPLAY assy | AWZ7245 | AWZ7244 | AWZ7243 | AWZ7243 | |
| | ├─ TAPE KEY assy | AWZ7246 | AWZ7246 | AWZ7246 | AWZ7246 | |
| | └─ MIC assy | AWZ7267 | Not used | Not used | Not used | |
| | FM/AM TUNER MODULE | AXQ1012 | AXQ1013 | AXQ1012 | AXQ1012 | |
| | POWER MOD. F100 | AXQ1017 | AXQ1017 | AXQ1017 | AXQ1017 | |
| | ├─ FRONT ASSY FOR 100W | AWZ5389 | AWZ5389 | AWZ5389 | AWZ5389 | |
| | └─ PWR, PRTEC assy | AWZ5392 | AWZ5392 | AWZ5392 | AWZ5392 | |
| | CASSETTE MOD. BC | EXK2420 | EXK2420 | EXK2440 | EXK2420 | |
| | └─ DECK unit | EWM1002 | EWM1002 | EWM1002 | EWM1002 | |

## ■ CONTRAST OF PCB ASSEMBLIES

### VOL ASSY

AWZ7236, AWZ7234 and AWZ7327 have the same construction except for the following :

| Mark | Symbol & Description | Part No. | | | Remarks |
|---|---|---|---|---|---|
| | | AWZ7236 | AWZ7234 | AWZ7327 | |
| | C1511, C1512 | CKSQYB273K50 | CKSQYB273K50 | CKSQYB333K50 | |
| | C1513, C1514 | CKSQYB473K50 | CKSQYB473K50 | CKSQYF104Z50 | |
| | R1509−R1512 | RS1/10S823J | RS1/10S823J | RS1/10S563J | |

## MAIN ASSY

AWZ7233, AWZ7231 and AWZ7230 have the same construction except for the following :

| Mark | Symbol & Description | Part No. | | | Remarks |
|---|---|---|---|---|---|
| | | AWZ7233 | AWZ7231 | AWZ7230 | |
| | IC3601 | NJM4558M−D | Not used | Not used | |
| | C3601 | CEASR47M50 | Not used | Not used | |
| | R2201, R2202 | RS1/10S682J | RS1/10S000J | RS1/10S000J | |
| | R2203, R2204 | RS1/10S682J | Not used | Not used | |
| | R2213, R2214 | RS1/10S332J | RS1/10S000J | RS1/10S000J | |
| | R2215, R2216 | RS1/10S332J | Not used | Not used | |
| | R3601−R3604 | RD1/8PM472J | Not used | Not used | |
| | R3605, R3606 | RS1/10S153J | Not used | Not used | |
| | R3607−R3610 | RS1/10S472J | Not used | Not used | |
| | CN19 Connector 4P | KPE4 | Not used | Not used | |
| | CN3 Pin jack 2P | AKB1146 | AKB1146 | Not used | |

## PRIMARY ASSY

AWZ7240, AWZ7239 and AWZ7238 have the same construction except for the following :

| Mark | Symbol & Description | Part No. | | | Remarks |
|---|---|---|---|---|---|
| | | AWZ7240 | AWZ7239 | AWZ7238 | |
| | R1101 (2.2M, 1/2W) | Not used | Not used | ACN−208 | ∗1 |
| | CN1101 AC socket 1P | AKP1078 | AKP1035 | AKP1078 | |

*∗1 : Refer to "SCH−7".*

## DISPLAY ASSY

AWZ7245, AWZ7244 and AWZ7243 have the same construction except for the following :

| Mark | Symbol & Description | Part No. | | | Remarks |
|---|---|---|---|---|---|
| | | AWZ7245 | AWZ7244 | AWZ7243 | |
| | D1817 | Not used | HSS104−02 | HSS104−02 | ∗2 |
| | D1818 | HSS104−02 | HSS104−02 | Not used | |

*∗2 : Refer to "SCH−6".*

## FM/AM TUNER MODULE

AXQ1012 and AXQ1013 have the same construction except for the following :

| Mark | Symbol & Description | Part No. | | Remarks |
|---|---|---|---|---|
| | | AXQ1012 | AXQ1013 | |
| | C6202 (1μF/16V) | ACG1051 | Not used | |
| | C6230 | CKSQYB333K50 | CKSQYB273K50 | |
| | C6232 | CKSYB333K50 | CKSYB273K50 | |
| | C6251 | CKSYB472K50 | CKSYB822K50 | |
| | C6252 | CKSQYB472K50 | CKSQYB822K50 | |
| | C6268 | CCSQCH101J50 | Not used | |
| | C6269 | Not used | CCSQCH101J50 | ∗3 |
| | C6270 (1μF/16V) | Not used | ACG1051 | ∗3 |
| | BN6201 Terminal 4P | AKA1016 | Not used | |
| | BN6201 Terminal 2P with PAL | Not used | AKA1017 | |

*∗3 : Refer to "SCH−2".*

## PARTS LIST FOR SD TYPE

### MAIN ASSY

#### SEMICONDUCTORS

| Mark | No. | Description | Parts No. |
|---|---|---|---|
|  | IC2104 |  | BU2090F |
|  | IC1006 |  | ICP−N10 |
|  | IC1001 |  | ICP−N50 |
|  | IC2201−IC2205, IC3301, IC3302 |  | NJM4558M−D |
|  | IC3501, IC3502, IC3601, IC3701−IC3703 |  | NJM4558M−D |
|  | IC2102 |  | TC9162N |
|  | IC2101 |  | TC9164N |
|  | Q1051, Q1054 |  | 2SA1048 |
|  | Q1002 |  | 2SA1515 |
|  | Q1005 |  | 2SB560 |
|  | Q1006, Q1055 |  | 2SC2458 |
|  | Q2101, Q2102, Q2104, Q2105 |  | 2SC2878 |
|  | Q1003 |  | 2SC3377 |
|  | Q2103, Q2106 |  | XDA124ES |
|  | Q1004 |  | XDA143ES |
|  | Q1001 |  | XDC143ES |
|  | D1001 |  | D5SB20F |
|  | D1013, D1014, D1021, D1022, D1027 |  | HSS104−02 |
|  | D1031−D1033, D2101, D3701−D3705 |  | HSS104−02 |
|  | D6901 |  | HSS104−02 |
|  | D2111 |  | MTZJ6.2 |
|  | D1002 |  | RB152 |
|  | D1023 |  | RD30ESB |
|  | D1011, D1012 |  | RD5.1EB |
|  | D1034 |  | RD5.6ESB |
|  | D1010 |  | RD7.5ESB |
|  | D1007, D1008 |  | S5688G |

#### CAPACITORS

| Mark | No. | Description | Parts No. |
|---|---|---|---|
|  | C1010 | (0.01μF/150V) | ACG1005 |
|  | C1001, C1002 | (6800μF/56V) | ACH1084 |
|  | C3301, C3302 | (4.7μF/50V) | ACH7003 |
|  | C1501, C1502 | (2.2μF/50V) | ACH7004 |
|  | C3505 |  | CCSQCH101J50 |
|  | C3303, C3304 |  | CCSQCH220J50 |
|  | C6901 |  | CCSQSL101J50 |
|  | C1019 |  | CEAS010M50 |
|  | C1017 |  | CEAS101M63 |
|  | C1004 |  | CEAS102M35 |
|  | C1224 |  | CEAS1R5M50 |
|  | C1007, C1225 |  | CEAS220M50 |
|  | C1016 |  | CEAS221M10 |
|  | C1003 |  | CEAS222M35 |
|  | C2101, C2102 |  | CEAS2R2M50 |
|  | C1021, C1022 |  | CEAS470M16 |
|  | C1018 |  | CEAS470M63 |
|  | C3601 |  | CEASR47M50 |
|  | C2503, C2504 |  | CEYAR22M50 |
|  | C2111 |  | CKPUYB101K50 |
|  | C3502, C3504 |  | CKSQYB102K50 |
|  | C3710, C3711 |  | CKSQYB152K50 |
|  | C3305, C3306, C3704, C3705 |  | CKSQYB153K50 |
|  | C3309, C3310 |  | CKSQYB182K50 |
|  | C3307, C3308 |  | CKSQYB222K50 |
|  | C2201, C2202, C3713, C3714 |  | CKSQYB471K50 |
|  | C3707, C3708 |  | CKSQYB472K50 |
|  | C2103, C2104, C3701−C3703, C3706 |  | CKSQYB473K50 |
|  | C3709, C3712, C3715, C1201 |  | CKSQYB473K50 |
|  | C2232 |  | CKSQYB562K50 |
|  | C2204 |  | CKSQYB821K50 |
|  | C3311, C3312 |  | CKSQYF103Z50 |
|  | C1023, C1226, C1301−C1304, C2105 |  | CKSQYF104Z50 |
|  | C3501, C3503 |  | CKSQYF683Z50 |
|  | C1009 |  | CQMA104K250 |

#### RESISTORS

| Mark | No. | Description | Parts No. |
|---|---|---|---|
|  | R1046, R1047 |  | RD1/2PM181J |
|  | R1020 |  | RD1/2PM392J |
|  | R1042, R1044 |  | RD1/4PM102J |
|  | R1019 |  | RD1/4PM222J |
|  | R1002 |  | RD1/4PM392J |
|  | R1003 |  | RD1/4PM472J |
|  | R1301, R1302 |  | RD1/4PMF6R8J |
|  | R1055, R2105−R2110 |  | RD1/8PM102J |
|  | R1043, R1045 |  | RD1/8PM103J |
|  | R6901, R6902 |  | RD1/8PM104J |
|  | R3606 |  | RD1/8PM153J |
|  | R1008, R1011 |  | RD1/8PM203J |
|  | R2170 |  | RD1/8PM222J |
|  | R2217 |  | RD1/8PM303J |
|  | R3601, R3607 |  | RD1/8PM472J |
|  | R3701 |  | RD1/8PM473J |
|  | R3503 |  | RD1/8PM513J |
|  | R2208 |  | RD1/8PM682J |
|  | R3506 |  | RD1/8PM823J |
|  | R1201, R1202 |  | RS3LMF331J |
|  | R1007, R1017 |  | RS3LMFR22J |
|  | Other Resistors |  | RS1/10S□□□J |

#### OTHERS

| Mark | No. | Description | Parts No. |
|---|---|---|---|
|  |  | PIN JACK 4P | AKB1124 |
|  |  | SPEAKER TERMINAL 4−P | AKE1012 |
|  | CN1 | SOCKET (21P) | AKP1084 |
|  | CN11 | SOCKET (15P) | AKP1090 |
|  | CN19 | CONNECTOR (4P) | KPE4 |
|  | CN9 | CONNECTOR (7P) | KPE7 |
|  | CN3 | PIN JACK 2P | AKB1146 |

### VOL ASSY

#### SEMICONDUCTORS

| Mark | No. | Description | Parts No. |
|---|---|---|---|
|  | IC1501 |  | NJM4558M−D |
|  | IC1551 |  | TA8409S |

#### CAPACITORS

| Mark | No. | Description | Parts No. |
|---|---|---|---|
|  | C1505, C1506 |  | CCSQCH220J50 |
|  | C1554 |  | CEAS101M16 |
|  | C1503, C1504 |  | CEYA2R2M50 |
|  | C1511, C1512 |  | CKSQYB273K50 |
|  | C1509, C1510, C1513, C1514 |  | CKSQYB473K50 |
|  | C1551−C1553 |  | CKSQYF104Z50 |

#### RESISTORS

| Mark | No. | Description | Parts No. |
|---|---|---|---|
|  | VR1501 | (100K−3B*2) | ACX1089 |
|  | Other Resistors |  | RS1/10S□□□J |

### PRIMARY ASSY

#### FILTERS

| Mark | No. | Description | Parts No. |
|---|---|---|---|
|  | L1101 |  | ATF−151 |

#### CAPACITORS

| Mark | No. | Description | Parts No. |
|---|---|---|---|
|  | C1101, C1102 | (0.01μF/400V) | ACG1002 |

### OTHERS

| Mark | No. | Description | Parts No. |
|---|---|---|---|
| | CN1101 | AC SOCKET 1-P | AKP1078 |

## CONNECT ASSY

### SEMICONDUCTORS

| Mark | No. | Description | Parts No. |
|---|---|---|---|
| | IC1002-IC1005 | | ICP-N50 |

## HEADPHONE ASSY

### RESISTORS

| Mark | No. | Description | Parts No. |
|---|---|---|---|
| | All Resistors | | RS1/10S□□□J |

### OTHERS

| Mark | No. | Description | Parts No. |
|---|---|---|---|
| | CN1201 | JACK | AKN1028 |

## DISPLAY ASSY

### SEMICONDUCTORS

| Mark | No. | Description | Parts No. |
|---|---|---|---|
| | IC1901 | | PD4523A |
| | Q1901 | | 2SC2458 |
| | Q1701 | | DTA124EK |
| | Q1703-Q1706, Q1903 | | XDC124EK |
| | Q1902 | | XDC143EK |
| | D1701 | | PCX1019 |
| | D1703-D1706 | | AEL1118 |
| | D1801-D1804, D1808-D1815, D1818 | | HSS104-02 |
| | D1901, D1903, D1906 | | HSS104-02 |
| | D1904 | | RD6.8ESB |

### COIL

| Mark | No. | Description | Parts No. |
|---|---|---|---|
| | L1901 | | LAU220J |

### SWITCHES AND RELAYS

| Mark | No. | Description | Parts No. |
|---|---|---|---|
| | S1801-S1815 | | ASG1051 |

### CAPACITORS

| Mark | No. | Description | Parts No. |
|---|---|---|---|
| | C1903 | (47F/5.5V) | ACH1246 |
| | C1907 | | CEJA010M50 |
| | C1910 | | CEJA100M16 |
| | C1905 | | CEJA221M10 |
| | C1902 | | CEJA470M16 |
| | C1908 | | CEJAR22M50 |
| | C1909 | | CKPUYB102K50 |
| | C1901, C1904, C1906 | | CKPUYF473Z16 |
| | C1911 | | CKSQYB473K50 |
| | C1915, C1916 | | CKSQYF102Z50 |
| | C1912 | | CKSQYF473Z50 |

### RESISTORS

| Mark | No. | Description | Parts No. |
|---|---|---|---|
| | R1933, R1934 | | RA15T473J |
| | R1901 | | RS1/10S101J |
| | R1902, R1903, R1905, R1924 | | RS1/10S103J |
| | R1922 | | RS1/10S222J |
| | R1904 | | RS1/10S393J |
| | R1917, R1918, R1920, R1921 | | RS1/10S472J |
| | R1929-R1931, R1938 | | RS1/10S472J |
| | R1935-R1937 | | RS1/10S473J |
| | R1928 | | RS1/10S561J |
| | Other Resistors | | RD1/8PM□□□J |

### OTHERS

| Mark | No. | Description | Parts No. |
|---|---|---|---|
| | CN1901 | CONNECTOR 21P | 52492-2120 |
| | V1701 | FL TUBE | AAV7006 |
| | X1901 | CERAMIC RESONATOR | ASS1018 |
| | | REMOTE RECEIVER UNIT | AXX1023 |

## TAPE KEY ASSY

### SEMICONDUCTORS

| Mark | No. | Description | Parts No. |
|---|---|---|---|
| | Q1702 | | XDC124ES |
| | D1702 | | AEL1131 |
| | D1707, D1708 | | AEL1132 |

### SWITCHES AND RELAYS

| Mark | No. | Description | Parts No. |
|---|---|---|---|
| | S1816-S1819, S1821-S1823 | | ASG1051 |

### RESISTORS

| Mark | No. | Description | Parts No. |
|---|---|---|---|
| | All Resistors | | RD1/8PM□□□J |

## MIC ASSY

### SEMICONDUCTOR

| Mark | No. | Description | Parts No. |
|---|---|---|---|
| | IC2501 | | NJM4558M-D |

### CAPACITORS

| Mark | No. | Description | Parts No. |
|---|---|---|---|
| | C2504 | | CCSQCH221J50 |
| | C2503, C2505 | | CEJA100M16 |
| | C2502 | | CEJA4R7M35 |
| | C2501 | | CKSQYB122K50 |
| | C2507 | | CKSQYB473K50 |
| | C2506 | | CKSQYB682K50 |
| | C2508, C2509 | | CKSQYF473Z50 |

### RESISTORS

| Mark | No. | Description | Parts No. |
|---|---|---|---|
| | VR2501 | (10K-B) | ACS7001 |
| | Other Resistors | | RS1/10S□□□J |

### OTHERS

| Mark | No. | Description | Parts No. |
|---|---|---|---|
| | | JACK | AKN1030 |

## FM/AM TUNER MODULE

### SEMICONDUCTORS

| Mark | No. | Description | Parts No. |
|---|---|---|---|
| | IC6201 | | LA1836M |
| | IC6202 | | LM7001J |
| | Q6102 | | 2SC2223 |
| | Q6203 | | 2SC2235 |
| | Q6202 | | 2SC2712 |
| | Q6103, Q6214 | | 2SC2714 |
| | Q6201 | | 2SK208 |
| | Q6104 | | 2SK302 |
| | Q6101 | | 3SK194 |
| | Q6204 | | XDA124EK |
| | Q6217 | | XDC124EK |
| | D6101, D6102 | | 1T33 |

### COILS AND FILTERS

| Mark | No. | Description | Parts No. |
|---|---|---|---|
| | L6104 | | ATC1003 |
| | L6101 | | ATC1020 |
| | L6102 | | ATC1021 |
| | T6101 | | ATE-063 |
| | L6207 | | ATE1013 |
| | F6203, F6204 | | ATF-119 |
| | F6101 | | ATF-155 |
| | F6202 | (450KHZ) | ATF1155 |
| | L6103 | | ATH1043 |
| | L6202, L6203, L6208 | | LCTA2R2J3225 |

### CAPACITORS

| Mark | No. | Description | Parts No. |
|---|---|---|---|
| | C6202, C6234, C6236 | (1µF/16V) | ACG1051 |
| | C6235 | (0.47µF/25V) | ACG1052 |
| | C6107 | | CCSCH010C50 |
| | C6229 | | CCSCH821J50 |
| | C6110 | | CCSQCH020C50 |

| Mark | No. | Description | Parts No. |
|---|---|---|---|
|  | C6101 |  | CCSQCH050C50 |
|  | C6108, C6203, C6268 |  | CCSQCH101J50 |
|  | C6111, C6116, C6208, C6221, C6222 |  | CCSQCH150J50 |
|  | C6115 |  | CCSQCH330J50 |
|  | C6114 |  | CCSQRH080D50 |
|  | C6113 |  | CCSQRH180J50 |
|  | C6105 |  | CCSQTH150J50 |
|  | C6261 |  | CEAS010M50 |
|  | C6224, C6231, C6233, C6246, C6262 |  | CEAS100M50 |
|  | C6216, C6217 |  | CEAS330M16 |
|  | C6219 |  | CEAS470M10 |
|  | C6243−C6245 |  | CEAS470M16 |
|  | C6227 |  | CEAS470M25 |
|  | C6238 |  | CEJA100M16 |
|  | C6249, C6250 |  | CEJA4R7M35 |
|  | C6215 |  | CFTXA103J50 |
|  | C6214 |  | CFTXA224J50 |
|  | C6103, C6106, C6112, C6204 |  | CKSQYB102K50 |
|  | C6102, C6109, C6117, C6210, C6264 |  | CKSQYB103K50 |
|  | C6213 |  | CKSQYB223K50 |
|  | C6230 |  | CKSQYB333K50 |
|  | C6228, C6252 |  | CKSQYB472K50 |
|  | C6209, C6237, C6265, C6267 |  | CKSQYB473K50 |
|  | C6212, C6218 |  | CKSQYF103Z50 |
|  | C6220, C6226, C6239, C6242, C6255 |  | CKSQYF223Z50 |
|  | C6225, C6241, C6266 |  | CKSQYF473Z50 |
|  | C6232 |  | CKSYB333K50 |
|  | C6251 |  | CKSYB472K50 |
|  | C6223 |  | CKSYF103Z50 |
|  | C6263 |  | CKSYF473Z50 |

### RESISTORS

|  |  |  |  |
|---|---|---|---|
|  | VR6201 | (10kΩ) | ACP1056 |
|  | VR6202 |  | VRTB6VS223 |
|  | R6299, R6300 |  | RD1/8PM102J |
|  | R6113, R6116, R6118, R6268−R6271 |  | RS1/8S000J |
|  | R6275, R6276, R6278, R6283, R6284 |  | RS1/8S000J |
|  | R6290, R6293, R6294, R6297 |  | RS1/8S000J |
|  | R6243, R6244 |  | RS1/8S101J |
|  | R6211 |  | RS1/8S103J |
|  | R6237 |  | RS1/8S182J |
|  | R6209 |  | RS1/8S221J |
|  | R6239 |  | RS1/8S332J |
|  | R6101 |  | RS1/8S470J |
|  | Other Resistors |  | RS1/10S□□□J |

### OTHERS

|  |  |  |  |
|---|---|---|---|
|  | BN6201 | TERMINAL 4−P | AKA1016 |
|  | X6203 | CRYSTAL RESONATOR (7.200MHz) | ASS1042 |
|  | X6201 | CRYSTAL RESONATOR (450kHz) | ASS1066 |
|  | X6202 | CERAMIC RESONATOR | ATF1027 |
|  |  | AM RF TUNING BLOCK | AXX1041 |

## FRONT ASSY FOR 100W

### SEMICONDUCTORS

|  |  |  |  |
|---|---|---|---|
|  | IC7501 |  | UPC4570G2 |
|  | IC7701, IC7702 |  | XRA4558F−P |
|  | Q7507, Q7508 |  | 2SA1182 |
|  | Q7601 |  | 2SA1255 |
|  | Q7501, Q7502 |  | 2SC2240 |
|  | Q7605, Q7606, Q7703 |  | 2SC2712 |
|  | Q7505, Q7506 |  | 2SC2859 |
|  | Q7603 |  | 2SC3138 |
|  | Q7704 |  | XDC143EK |
|  | D7505, D7506, D7517, D7518 |  | 1SS181 |
|  | D7503, D7504, D7516 |  | 1SS184 |
|  | D7521−D7524 |  | 1SS244 |
|  | D7519, D7520, D7525, D7526, D7531 |  | HSS104−02 |
|  | D7533, D7701−D7704, D7707 |  | HSS104−02 |
|  | D7710−D7714 |  | HSS104−02 |
|  | D7507−D7510 |  | RD3.3ESB2 |

### CAPACITORS

|  |  |  |  |
|---|---|---|---|
|  | C7703 | (1μF/16V) | ACG1051 |
|  | C7523, C7524 | (1μF/16V) | ACH1150 |
|  | C7509, C7510 | (1μF/16V) | ACH1151 |
|  | C7539, C7540 | (1μF/16V) | ACH1248 |
|  | C7519−C7522, C7545−C7552 |  | CCSQCH101J50 |
|  | C7525−C7528 |  | CCSQCH271J50 |
|  | C7503, C7504 |  | CCSQCH331J50 |
|  | C7541, C7542 |  | CCSQCH470J50 |
|  | C7529−C7532 |  | CKSQYB333K50 |
|  | C7543, C7544 |  | CKSQYB472K50 |
|  | C7602 |  | CKSQYF103Z50 |
|  | C7601, C7603, C7702 |  | CKSQYF104Z50 |
|  | C7537 |  | CKSQYF473Z50 |

### RESISTORS

|  |  |  |  |
|---|---|---|---|
|  | VR7701 | (1kΩ) | ACP1053 |
|  | R7519, R7520 | (630kΩ, 1/10W) | ACN1106 |
|  | R7515, R7516 | (1.8kΩ, 1/10W) | ACN1107 |
| ⚠ | R7541, R7542 |  | RD1/4PMF100J |
|  | R7711 |  | RS1/10S1001F |
| ⚠ | R7547−R7550 |  | RS1/10S2200F |
|  | R7709 |  | RS1/10S39R0F |
|  | R7710 |  | RS1/10S56R0F |
|  | R7708 |  | RS1/10S7500F |
|  | R7753 |  | RS1/8S000J |
| ⚠ | R7537−R7540 |  | RS1/8S100J |
|  | R7553 |  | RS1/8S101J |
| ⚠ | R7543, R7544 |  | RS1/8S7R5J |
|  | Other Resistors |  | RS1/10S□□□J |

## PWR, PRTEC ASSY

### SEMICONDUCTORS

|  |  |  |  |
|---|---|---|---|
|  | Q7208, Q7215, Q7219 |  | 2SA1162 |
|  | Q7213 |  | 2SA1182 |
|  | Q7301, Q7302 |  | 2SC1815 |
|  | Q7207, Q7209, Q7212, Q7214, Q7218 |  | 2SC2712 |
|  | Q7220, Q7221 |  | 2SC2712 |
|  | Q7216 |  | 2SC2859 |
|  | Q7211, Q7217 |  | 2SC3138 |
|  | Q7210, Q7222 |  | XDA124EK |
|  | D7201, D7205 |  | HSS104−02 |
|  | D7204, D7206 |  | HZS6C3L |
|  | D7203 |  | HZS9A2L |

### CAPACITORS

|  |  |  |  |
|---|---|---|---|
|  | C7402, C7406, C7408 | (2.2μF/50V) | ACG1050 |
|  | C7401, C7405, C7407 | (0.33μF/50V) | ACG1053 |
|  | C7212 | (1μF/50V) | ACH1056 |
|  | C7409 | (10μF/35V) | ACH1150 |
|  | C7205, C7207, C7208 | (47μF/16V) | ACH1151 |
|  | C7301 |  | CKSQYB332K50 |
|  | C7213 |  | CKSQYF103Z50 |
|  | C7206, C7404 |  | CKSQYF104Z50 |

### RESISTORS

| Mark | No. | Description | Parts No. |
|---|---|---|---|
| | R7403, R7404 | (1Ω, 1/10W) | ACN1104 |
| | R7303 | | RS1/10S1002F |
| | R7304 | | RS1/10S8200F |
| | Other Resistors | | RS1/10S□□□J |

### OTHERS

| Mark | No. | Description | Parts No. |
|---|---|---|---|
| | CN7101 | CONNECTOR (12P) | KPE12 |

# OTHER ELECTRICAL PARTS

## FRONT ASSY FOR 100W

### SEMICONDUCTORS

| Mark | No. | Description | Parts No. |
|---|---|---|---|
| ⚠ | Q7511, Q7512 | | 2SA1264N |
| | Q7509, Q7510 | | 2SA1837 |
| ⚠ | Q7513, Q7514 | | 2SC3181N |
| | Q7503, Q7504 | | 2SC4793 |

## PWR, PRTEC ASSY

### SEMICONDUCTORS

| Mark | No. | Description | Parts No. |
|---|---|---|---|
| | IC7404 | | MC7805CT |
| | IC7401, IC7403 | | MC7812CT |
| | IC7402 | | NJM7912A |

### OTHERS

| Mark | No. | Description | Parts No. |
|---|---|---|---|
| | | POWER MOD. PCB | ANP1708 |
| | | FAN MOTOR | AXM1019 |

## DECK UNIT

### SEMICONDUCTORS

| Mark | No. | Description | Parts No. |
|---|---|---|---|
| | IC4431 | | CXA1330S |
| | IC4901 | | M66320FP |
| | IC4202 | | MC14066BF |
| | IC4101, IC4151, IC4301 | | NJM4558M−D |
| | Q4111, Q4113, Q4161, Q4352 | | 2SA1515 |
| | Q4356 | | 2SC2240 |
| | Q4101, Q4102, Q4151, Q4152, Q4203−Q4206, Q4301, Q4302, Q4305, Q4306, Q4451−Q4454 | | 2SC2458 |
| | Q4355 | | 2SC2712 |
| | Q4353, Q4354 | | 2SC3377 |
| | Q4307, Q4308 | | 2SK373 |
| | Q4303, Q4432, Q4901 | | XDA124ES |
| | Q4208 | | XDA143ES |
| | Q4112, Q4114, Q4155, Q4162, Q4357, Q4431, Q4433, Q4434 | | XDC124ES |
| | Q4207, Q4351 | | XDC143ES |
| | D4111, D4161, D4201, D4202, D4301−D4308, D4451, D4452, D4453, D4901−D4906 | | HSS104−02 |

### COILS AND FILTERS

| Mark | No. | Description | Parts No. |
|---|---|---|---|
| | F4431, F4432 | | ATF1064 |
| | T4351 | | ATX−043 |
| | L4301, L4302 | | LTA392J |
| | L4303, L4304 | | LTA822J |

### CAPACITORS

| Mark | No. | Description | Parts No. |
|---|---|---|---|
| | C4361 (2000p/630V) | | ACE1020 |
| | C4319, C4320 | | CCDSL271K500 |
| | C4323, C4324 | | CCSQCH100D50 |
| | C4902 | | CCSQCH101J50 |
| | C4353 | | CCSQCH221J50 |
| | C4109, C4110, C4159, C4160 | | CCSQCH471J50 |
| | C4151, C4152 | | CCSQCH561J50 |
| | C4101, C4102, C4321, C4322, C4355 | | CCSQCH681J50 |
| | C4303, C4304, C4451, C4452 | | CEAS010M50 |
| | C4359, C4360, C4364, C4403, C4404, C4443−C4446, C4454 | | CEAS100M50 |
| | C4317, C4318 | | CEAS101M16 |
| | C4365, C4366, C4453 | | CEAS220M16 |
| | C4301, C4302, C4315, C4316 | | CEAS2R2M50 |
| | C4103, C4104, C4153, C4154, C4309, C4310 | | CEAS330M16 |
| | C4357 | | CEAS3R3M50 |
| | C4107, C4108, C4157, C4158 | | CEAS470M10 |
| | C4351 | | CEAS470M16 |
| | C4207, C4208 | | CEAS4R7M50 |
| | C4437, C4438 | | CEASR22M50 |
| | C4439−C4442 | | CEASR33M50 |
| | C4363 | | CKCYB222K500 |
| | C4352, C4354, C4903, C4904 | | CKSQYB103K50 |
| | C4313 | | CKSQYB152K50 |
| | C4314 | | CKSQYB222K50 |
| | C4307, C4308 | | CKSQYB273K50 |
| | C4305, C4306 | | CKSQYB333K50 |
| | C4901 | | CKSQYF473Z50 |
| | C4358 | | CQMA123K250 |
| | C4356 | | CQMA153J50 |
| | C4433−C4436 | | CQMA222J50 |
| | C4362 | | CQMA562K400 |
| | C4105, C4106, C4155, C4156 | | CQMA682J50 |
| | C4311, C4312 | | CQMA823J50 |

### RESISTORS

| Mark | No. | Description | Parts No. |
|---|---|---|---|
| | VR4111 | | VRTP6HS682 |
| | VR4201−VR4204 | | VRTP6HS203 |
| | VR4351, VR4352 | | VRTP6HS204 |
| | VR4301, VR4302 | | VRTP6HS502 |
| | R4353 | | RD1/2PM680J |
| | R4444, R4452 | | RD1/8PM103J |
| | R4121 | | RD1/8PM163J |
| | R4361, R4362 | | RD1/8PM333J |
| | R4401, R4402 | | RD1/8PM473J |
| | R4357 | | RD1/8PM6R8J |
| | R4113, R4114, R4163, R4164 | | RD1/8PM820J |
| | Other Resistors | | RS1/10S□□□J |

### OTHERS

| Mark | No. | Description | Parts No. |
|---|---|---|---|
| | CN24 | 3P SOCKET | EKS1018 |
| | CN25 | 5P SOCKET | EKS1019 |
| | CN16 | 12P JUMPER CONNECTOR | KPE12 |
| | CN3002 | 13P JUMPER CONNECTOR | KPE13 |

PIONEER
*The Art of Entertainment*

# Service Manual

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## STEREO CASSETTE DECK RECEIVER

# RX-P840

- **This product is a system(s) component.**
  **This product does not function properly when independent; to avoid malfunctions, be sure to connect it to the prescribed system component(s), otherwise damage may result.**

## CHAPTER 2

## CONTENTS

CHAPTER 2

2.1 PACKING AND EXPLODED VIEWS ··· 2−3
2.2 SCHEMATIC AND PCB CONNECTION DIAGRAMS ································· 2−10
2.3 BLOCK DIAGRAM ························· 2−50

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**PIONEER ELECTRONICS AUSTRALIA PTY. LTD.** 178-184 Boundary Road, Braeside, Victoria 3195, Australia TEL: [03] 580-9911

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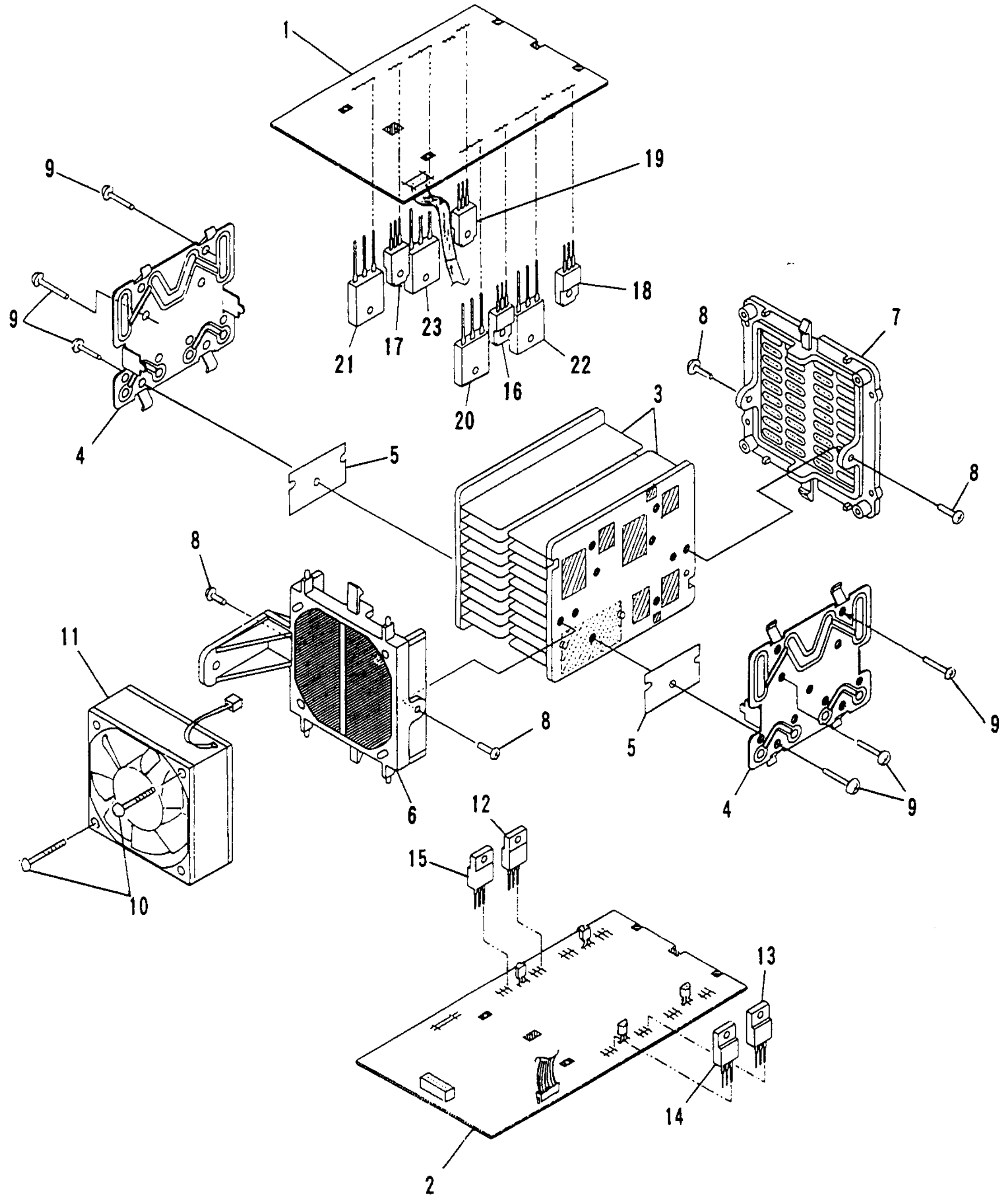
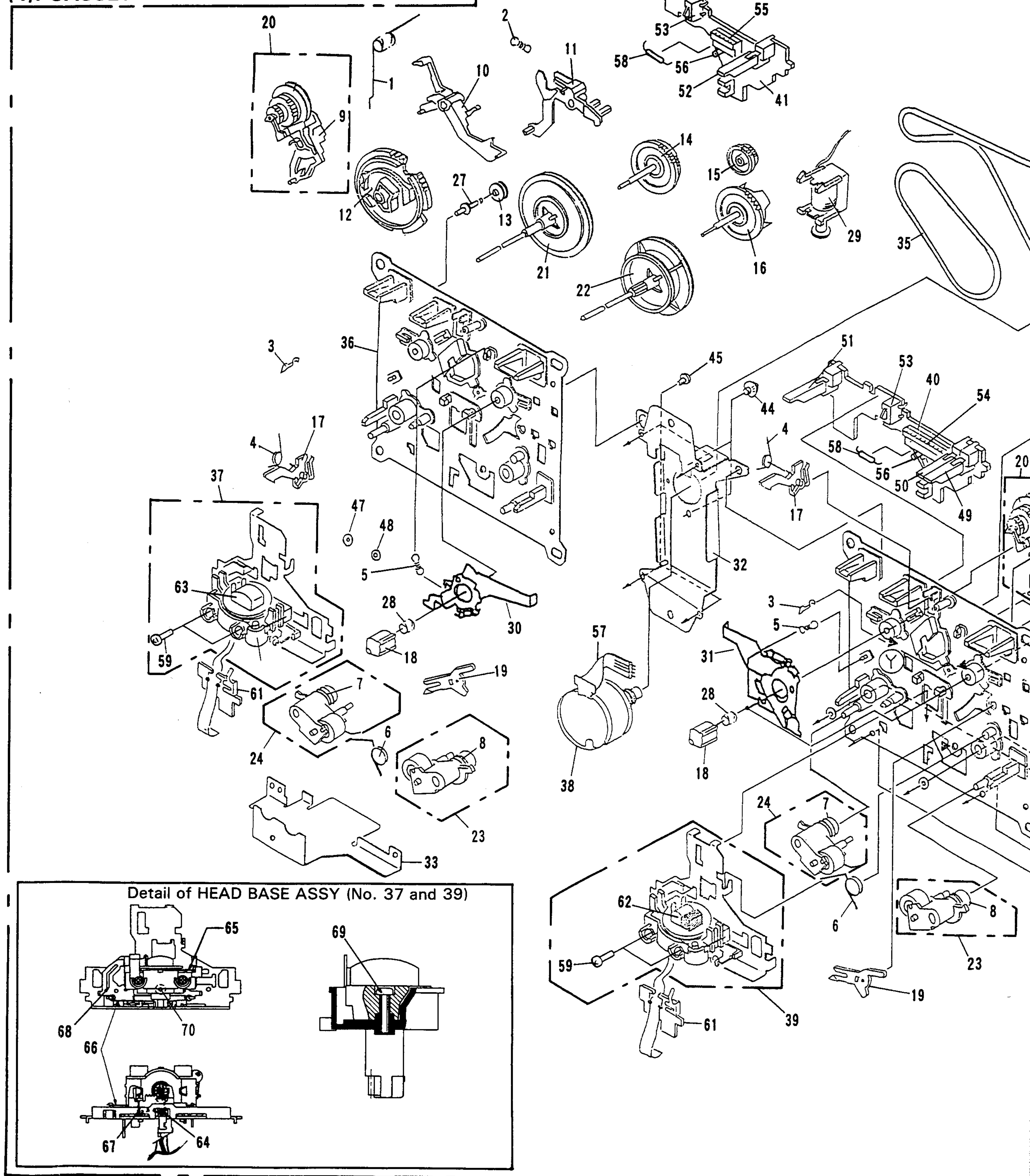
T−DFF MAY 1994 Printed in Japan

## (3). POWER MOD. F100

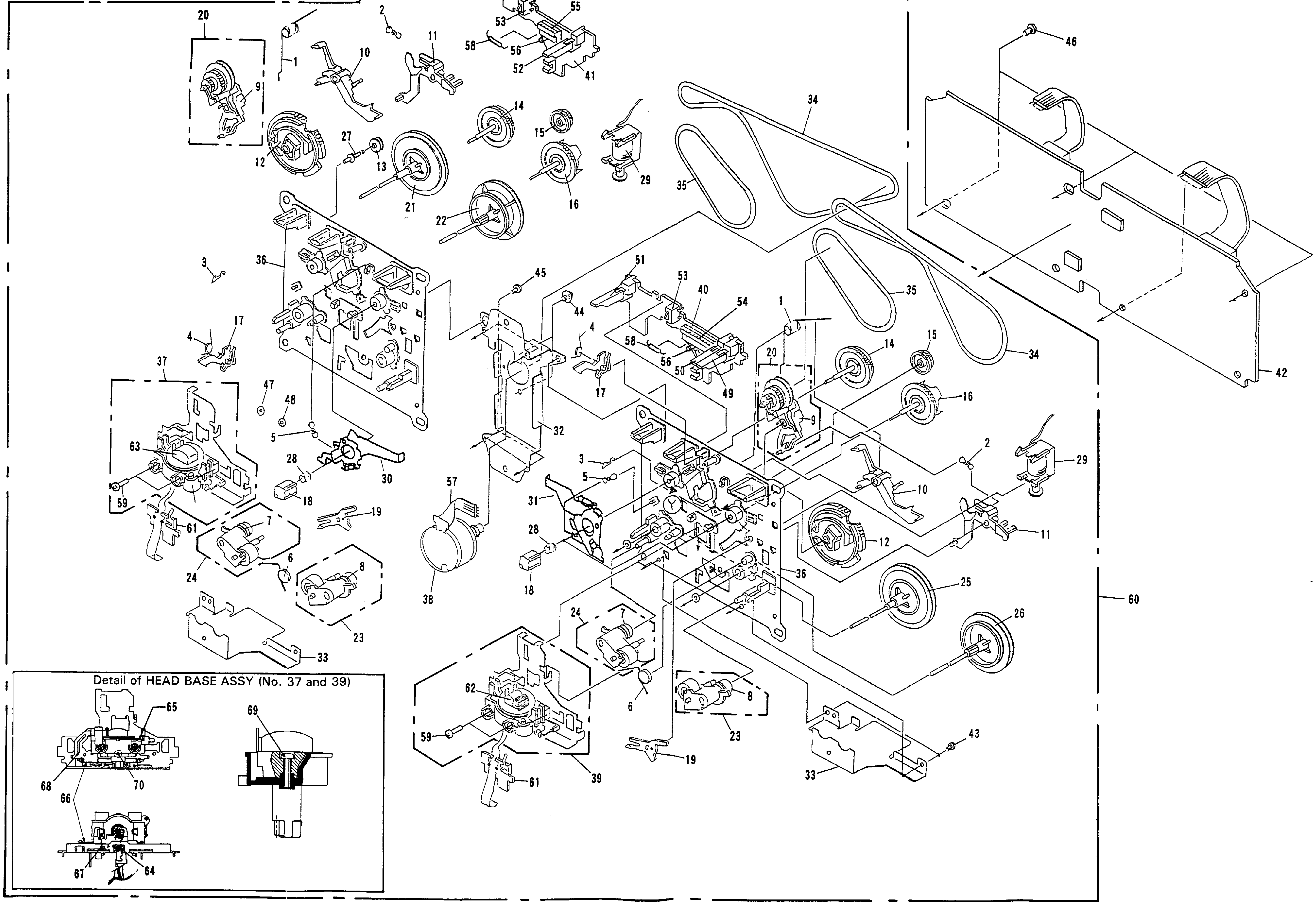

1
19
9
9
9
21
17
23
18
20
16
22
8
7
3
8
4
5
8
11
8
5
9
6
4
9
12
15
10
13
14
2

*Note: Ensure that silicon grease does not adhere to the MOLD A (No. 6) and MOLD B (No. 7).*

## (4). CASSETTE MECHA MOD. BC


20
9
1
10
2
11
53
55
58
56
52
41
12
27
13
21
22
14
15
16
29
35
36
3
45
51
53
40
54
17
4
44
4
58
56
50
49
20
37
47
48
5
17
32
63
28
30
3
5
59
18
19
57
31
61
7
28
6
24
8
38
18
24
7
23
33
23
6
8
62
59
61
39
19
Detail of HEAD BASE ASSY (No. 37 and 39)
65
69
68
70
66
67
64

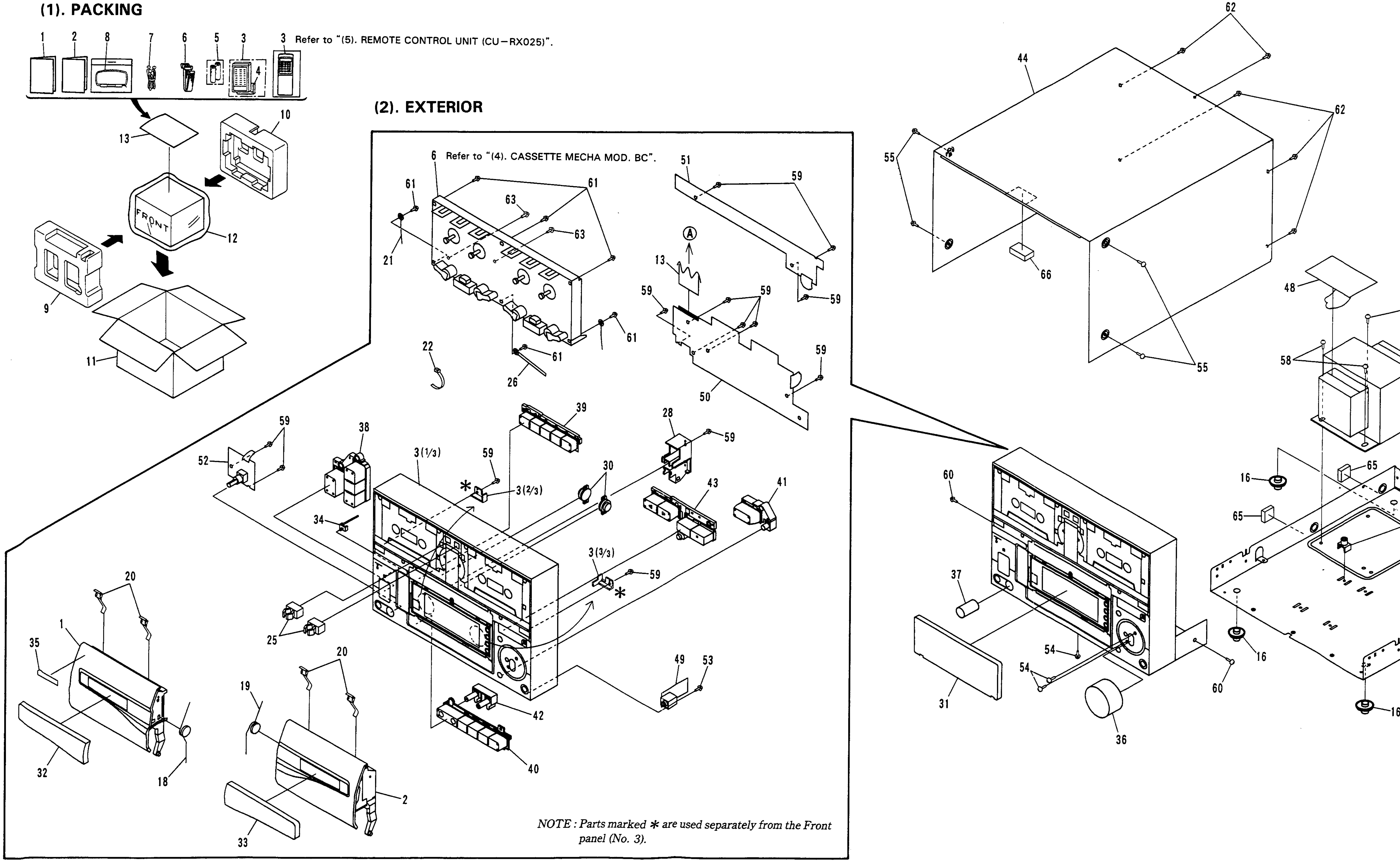
## (4). CASSETTE MECHA MOD. BC


20
9
1
2
10
11
53
55
58
56
52
41
46
12
27
13
21
14
15
16
29
34
35
22
36
3
45
51
53
40
54
44
4
17
58
56
50
49
1
20
14
15
16
9
35
34
42
37
47
48
5
63
28
30
59
18
32
57
3
5
31
28
18
2
29
10
11
12
19
7
24
6
8
23
38
36
25
26
60
33
24
7
62
6
8
23
19
59
39
61
33
43
Detail of HEAD BASE ASSY (No. 37 and 39)
65
69
68
70
66
67
64

## 2.1 PACKING AND EXPLODED VIEWS

### (1). PACKING

### (2). EXTERIOR

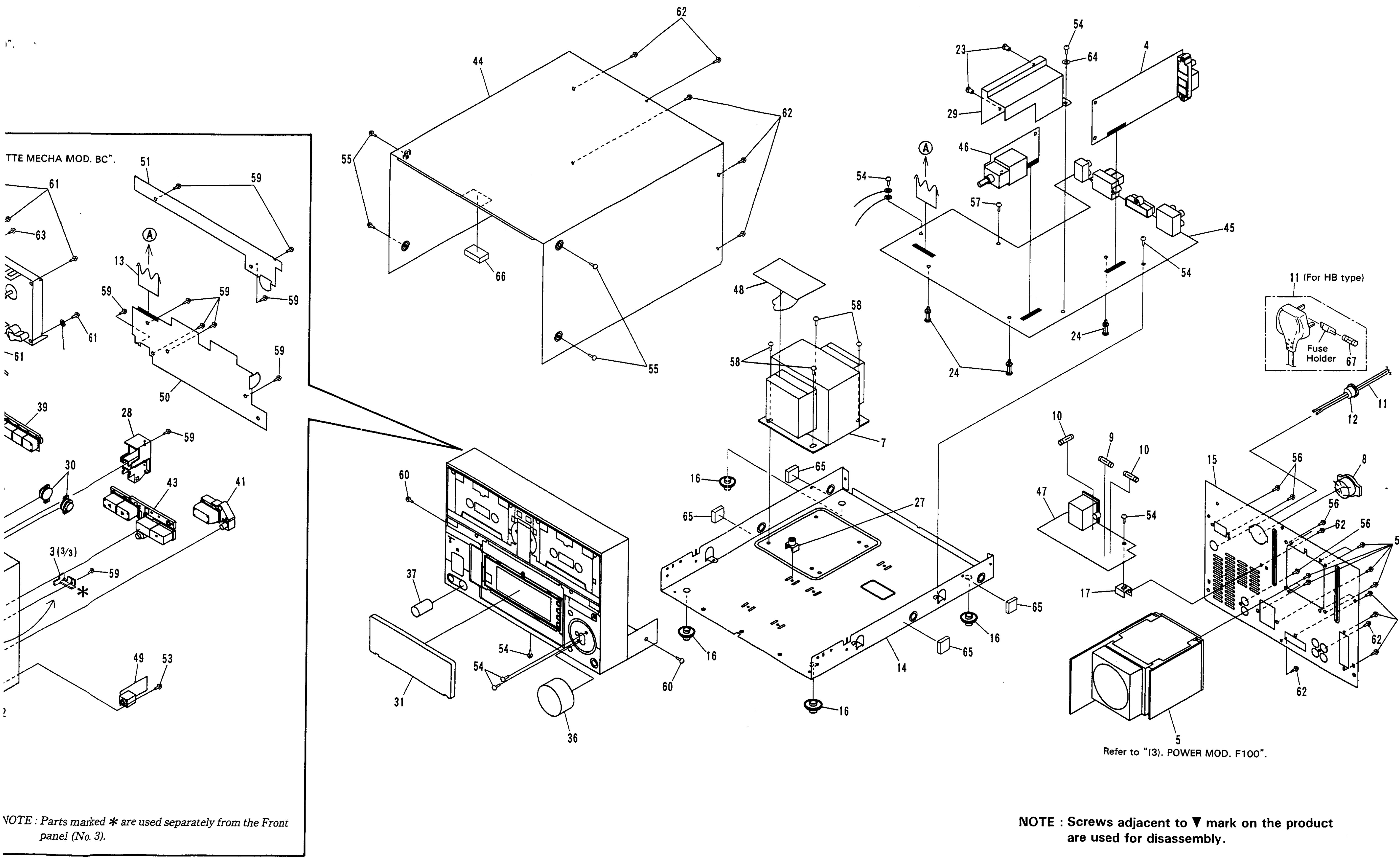


3 Refer to "(5). REMOTE CONTROL UNIT (CU−RX025)".

6 Refer to "(4). CASSETTE MECHA MOD. BC".

1
2
8
7
6
5
3
4
13
10
12
FRONT
9
11
61
63
21
22
26
51
59
13
Ⓐ
50
28
39
38
52
3(1/3)
3(2/3)
3(3/3)
*
34
30
43
41
25
20
35
32
18
19
33
42
40
49
53
44
62
55
66
48
58
16
65
60
37
54
31
36

*NOTE : Parts marked* * *are used separately from the Front panel (No. 3).*

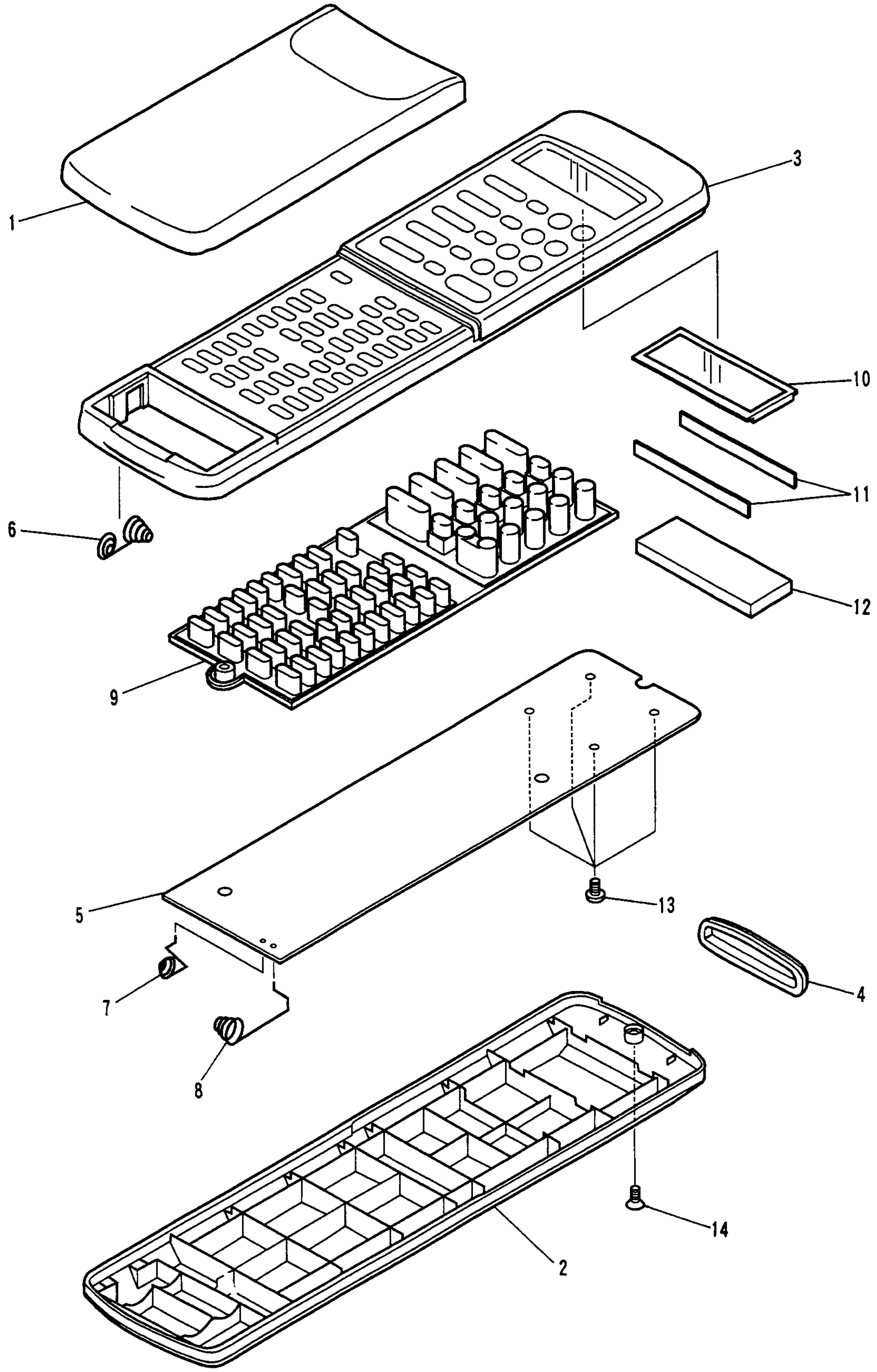

TTE MECHA MOD. BC".
51
59
61
63
13
Ⓐ
59
59
59
61
-61
59
50
39
28
59
30
43
41
3 (3/3)
59
*
49
53
44
62
62
55
66
55
54
23
64
4
29
46
Ⓐ
54
57
45
54
48
58
58
7
24
24
11 (For HB type)
Fuse Holder
67
11
12
10
9
10
15
56
8
56
62
56
56
47
54
17
56
62
62
16
65
65
27
65
16
65
16
14
16
60
37
54
54
31
36
60
5
A
B
C
D

Refer to "(3). POWER MOD. F100".

*NOTE : Parts marked* ∗ *are used separately from the Front panel (No. 3).*

**NOTE : Screws adjacent to ▼ mark on the product are used for disassembly.**

# (5). REMOTE CONTROL UNIT (CU－RX025) (FOR HB TYPE)


1
3
10
11
6
12
9
5
13
7
4
8
14
2

# 2.2 SCHEMATIC AND PCB CONNECTION DIAGRAMS

## NOTE FOR SCHEMATIC DIAGRAMS (Type 1A)

1. **When ordering service parts, be sure to refer to "PARTS LIST of EXPLODED VIEWS" or "PCB PARTS LIST".**
2. **Since these are basic circuits, some parts of them or the values of some components may be changed for improvement.**
3. **RESISTORS:**
   Unit: k:kΩ, M:MΩ, or Ω unless otherwise noted.
   Rated power: 1/4W, 1/6W, 1/8W, 1/10W unless otherwise noted.
   Tolerance: (F): ±1%, (G): ±2%, (K): ±10%, (M): ±20% or ±5% unless otherwise noted.
4. **CAPACITORS:**
   Unit: p:pF or μF unless otherwise noted.
   Ratings: capacitor (μF)/ voltage (V) unless otherwise noted.
   Rated voltage: 50V except for electrolytic capacitors.
5. **COILS:**
   Unit: m:mH or μH unless otherwise noted.
6. **VOLTAGE AND CURRENT:**
   [V] : Signal voltage at rated output.
   ⊐ or ← V :
   DC voltage (V) at no input signal unless otherwise noted.
   Value in ( ) is DC voltage at rated power.
   ⇦ mA or ← mA :
   DC current at no input signal unless otherwise noted.
7. **OTHERS:**
   - ⊘ or ⊘ : Adjusting point.
   - : Measurement point.
   - The ⚠ mark found on some component parts indicates the importance of the safety factor of the parts. Therefore, when replacing, be sure to use parts of identical designation.
8. **SCH–□ ON THE SCHEMATIC DIAGRAM:**
   - SCH–□ indicates the drawing number of the schematic diagram. (SCH stands for schematic diagram.)
9. **SWITCHES** (Underline indicates switch position):

| | |
|---|---|
| S8001 | VOLTAGE SELECTOR<br>AC110V/120-127V/220V/240V<br>(SD ONLY) |

DISPLAY assy

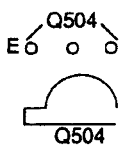
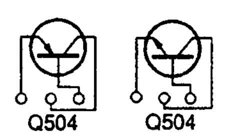
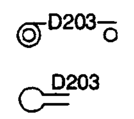
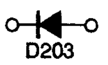
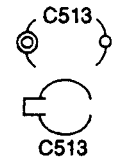
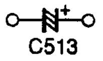
| | |
|---|---|
| S1801 | CLOCK-ADJ |
| S1802 | TIMER REC |
| S1803 | WAKE-UP |
| S1804 | TUNING − |
| S1805 | TUNING + |
| S1806 | POWER |
| S1807 | FUNCTION (DEMO) |
| S1808 | FREQ. /STATION |
| S1809 | AUTO TUNING |
| S1810 | MEMORY |
| S1811 | BAND |
| S1815 | P. BASS |

TAPE KEY assy

| | |
|---|---|
| S1812 | SFC MODE |
| S1813 | ASES/COPY |
| S1814 | ●II |
| S1816 | TAPE1/2 |
| S1817 | DOLBY NR B/C/OFF |
| S1818 | ◀◀ |
| S1819 | ▶▶ |
| S1821 | ▶ |
| S1822 | ◀ |
| S1823 | ■ |

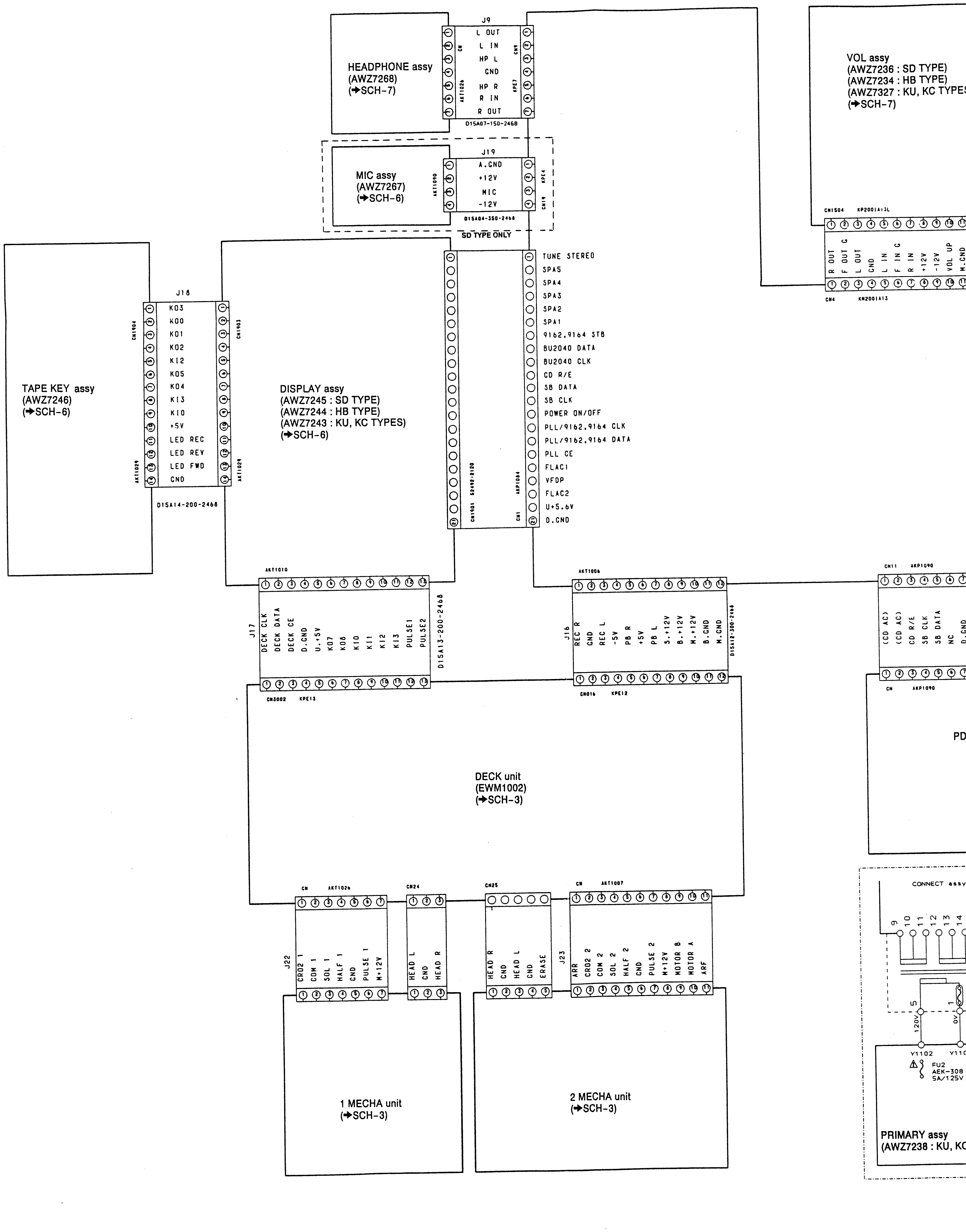
## NOTE FOR PCB DIAGRAMS:

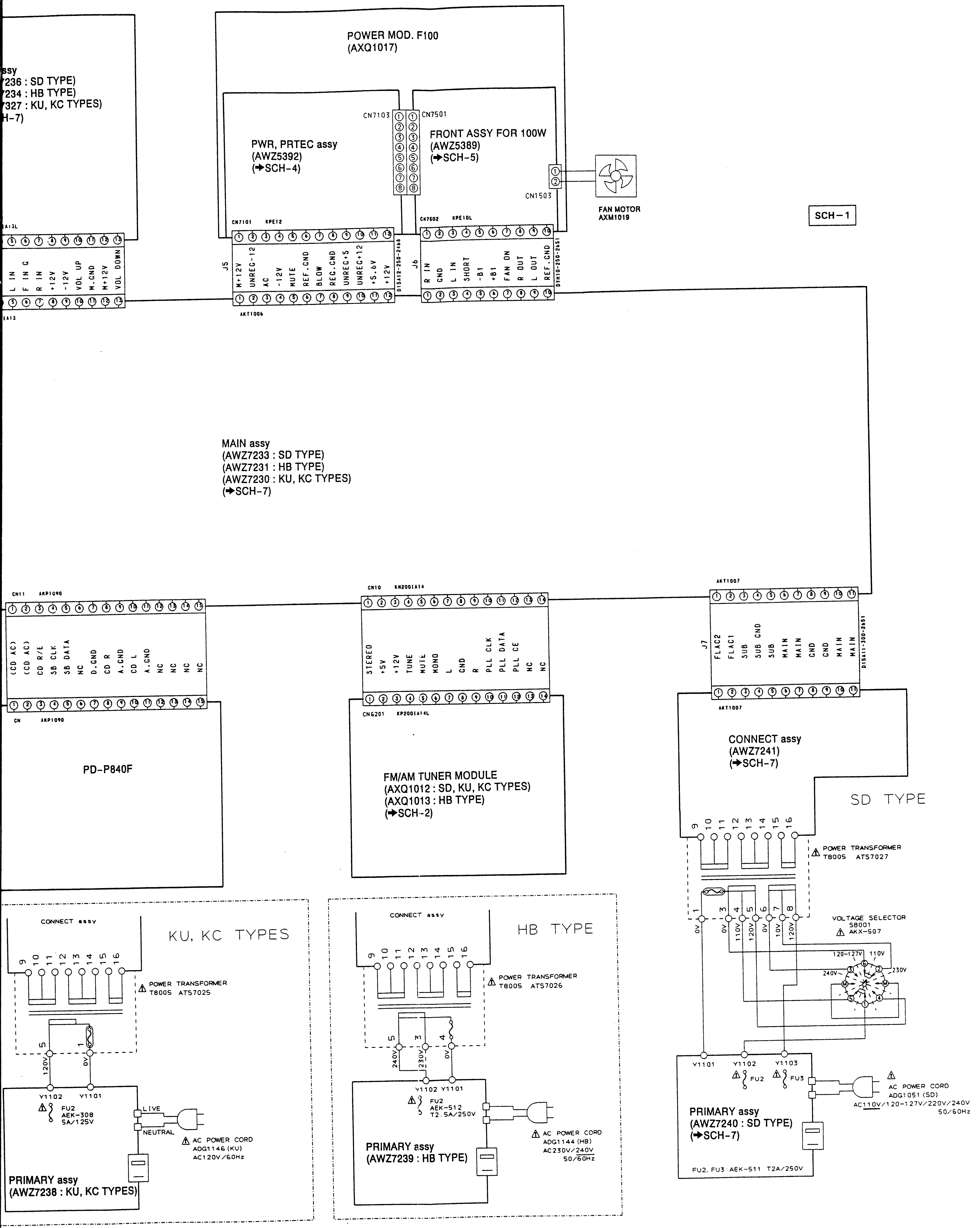
1. Part numbers in PCB diagrams match those in the schematic diagrams.
2. A comparison between the main parts of PCB and schematic diagrams is shown below.

| Symbol in PCB Diagrams | Symbol in Schematic Diagrams | Part Name |
|---|---|---|
|  |  | Transistor |
|  |  | Diode |
|  |  | Capacitor (Polarized) |

3. The transistor terminal marked with E or ⊏ shows the emitter.
4. The diode terminal marked with ◎ or ⊂ shows cathode side.
5. The capacitor terminal marked with ◎ or ⊏ shows negative terminal.

# (1). OVERALL SCHEMATIC DIAGRAM


HEADPHONE assy
(AWZ7268)
(➔SCH-7)
J9
L OUT
L IN
HP L
GND
HP R
R IN
R OUT
AKT1026
CN
KPE7
CN9
D15A07-150-2468
MIC assy
(AWZ7267)
(➔SCH-6)
AKT1090
J19
A.GND
+12V
MIC
-12V
KPE4
CN19
D15A04-350-2468
SD TYPE ONLY
VOL assy
(AWZ7236 : SD TYPE)
(AWZ7234 : HB TYPE)
(AWZ7327 : KU, KC TYPES
(➔SCH-7)
CN1504
KP2001A13L
R OUT
F OUT G
L OUT
GND
L IN
F IN G
R IN
+12V
-12V
VOL UP
M.GND
CN4
KM2001A13
TAPE KEY assy
(AWZ7246)
(➔SCH-6)
J18
CN1904
CN1903
K03
K00
K01
K02
K12
K05
K04
K13
K10
+5V
LED REC
LED REV
LED FWD
GND
AKT1029
D15A14-200-2468
DISPLAY assy
(AWZ7245 : SD TYPE)
(AWZ7244 : HB TYPE)
(AWZ7243 : KU, KC TYPES)
(➔SCH-6)
TUNE STEREO
SPA5
SPA4
SPA3
SPA2
SPA1
9162,9164 STB
BU2040 DATA
BU2040 CLK
CD R/E
SB DATA
SB CLK
POWER ON/OFF
PLL/9162,9164 CLK
PLL/9162,9164 DATA
PLL CE
FLAC1
VFDP
FLAC2
U+5.6V
D.GND
CN1901
52492-2120
AKP1084
CN1
AKT1010
J17
DECK CLK
DECK DATA
DECK CE
D.GND
U.+5V
K07
K06
K10
K11
K12
K13
PULSE1
PULSE2
D15A13-200-2468
CN3002
KPE13
AKT1006
J16
REC R
GND
REC L
-5V
PB R
+5V
PB L
S.+12V
B.+12V
M.+12V
B.GND
M.GND
D15A12-300-2468
CN016
KPE12
CN11
AKP1090
(CD AC)
(CD AC)
CD R/E
SB CLK
SB DATA
NC
D.GND
CN
AKP1090
PD
DECK unit
(EWM1002)
(➔SCH-3)
CN
AKT1026
CN24
CN25
AKT1007
J22
CRO2 1
COM 1
SOL 1
HALF 1
GND
PULSE 1
M+12V
HEAD L
GND
HEAD R
HEAD R
GND
HEAD L
GND
ERASE
J23
ARR
CRO2 2
COM 2
SOL 2
HALF 2
GND
PULSE 2
M+12V
MOTOR B
MOTOR A
ARF
1 MECHA unit
(➔SCH-3)
2 MECHA unit
(➔SCH-3)
CONNECT assy
9
10
11
12
13
14
5
1
120V
0V
Y1102
Y110
FU2
AEK-308
5A/125V
PRIMARY assy
(AWZ7238 : KU, KC


POWER MOD. F100
(AXQ1017)
PWR, PRTEC assy
(AWZ5392)
(➔SCH-4)
CN7103
CN7501
FRONT ASSY FOR 100W
(AWZ5389)
(➔SCH-5)
CN1503
FAN MOTOR
AXM1019
SCH-1
ssy
236 : SD TYPE)
234 : HB TYPE)
327 : KU, KC TYPES)
H-7)
CN7101 KPE12
CN7502 KPE10L
J5
M+12V
UNREG-12
AC
-12V
MUTE
REF.GND
BLOW
REC.GND
UNREG+5
UNREG+12
+5.6V
+12V
J6
R IN
GND
L IN
SHORT
-B1
+B1
FAN ON
R OUT
L OUT
REF.GND
L IN
F IN G
R IN
+12V
-12V
VOL UP
M.GND
M+12V
VOL DOWN
AKT1006
MAIN assy
(AWZ7233 : SD TYPE)
(AWZ7231 : HB TYPE)
(AWZ7230 : KU, KC TYPES)
(➔SCH-7)
CN11 AKP1090
(CD AC)
(CD AC)
CD R/E
SB CLK
SB DATA
NC
D.GND
CD R
A.GND
CD L
A.GND
NC
NC
NC
NC
CN10 KN200(A14
STEREO
+5V
+12V
TUNE
MUTE
MONO
L
GND
R
PLL CLK
PLL DATA
PLL CE
NC
NC
CN6201 KP200(A14L
AKT1007
J7
FLAC2
FLAC1
SUB
SUB GND
SUB
MAIN
MAIN
GND
GND
MAIN
MAIN
PD-P840F
FM/AM TUNER MODULE
(AXQ1012 : SD, KU, KC TYPES)
(AXQ1013 : HB TYPE)
(➔SCH-2)
CONNECT assy
(AWZ7241)
(➔SCH-7)
SD TYPE
POWER TRANSFORMER
T8005 ATS7027
VOLTAGE SELECTOR
S8001
AKX-507
120-127V
110V
240V
230V
0V
110V
120V
0V
10V
120V
Y1101
Y1102
Y1103
FU2
FU3
AC POWER CORD
ADG1051 (SD)
AC110V/120-127V/220V/240V
50/60Hz
PRIMARY assy
(AWZ7240 : SD TYPE)
(➔SCH-7)
FU2, FU3 : AEK-511 T2A/250V
CONNECT assy
KU, KC TYPES
POWER TRANSFORMER
T8005 ATS7025
120V
0V
Y1102
Y1101
FU2
AEK-308
5A/125V
LIVE
NEUTRAL
AC POWER CORD
ADG1146 (KU)
AC120V/60Hz
PRIMARY assy
(AWZ7238 : KU, KC TYPES)
CONNECT assy
HB TYPE
POWER TRANSFORMER
T8005 ATS7026
240V
230V
0V
Y1102 Y1101
FU2
AEK-512
T2.5A/250V
AC POWER CORD
ADG1144 (HB)
AC230V/240V
50/60Hz
PRIMARY assy
(AWZ7239 : HB TYPE)

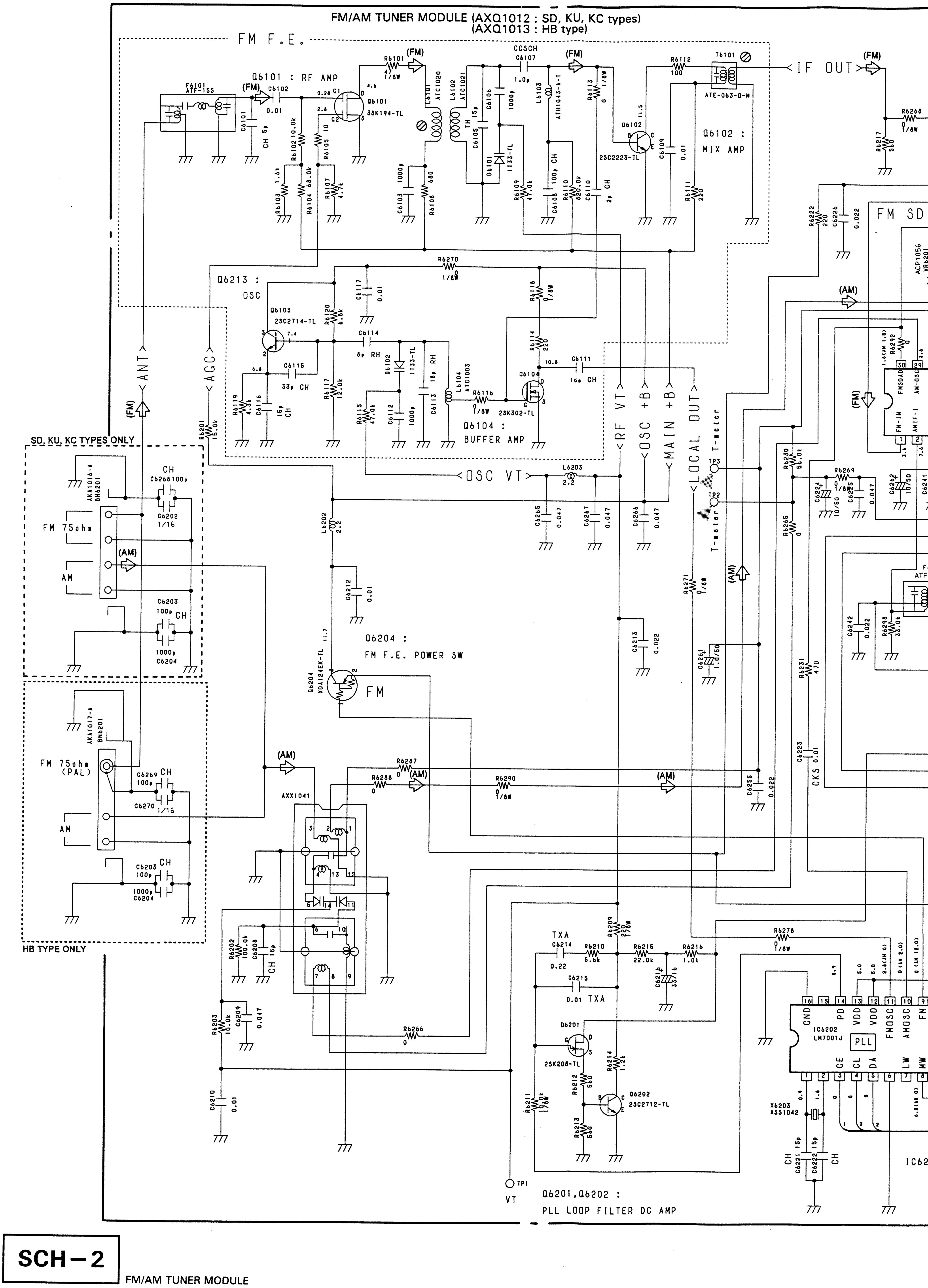
## Line Voltage Selection

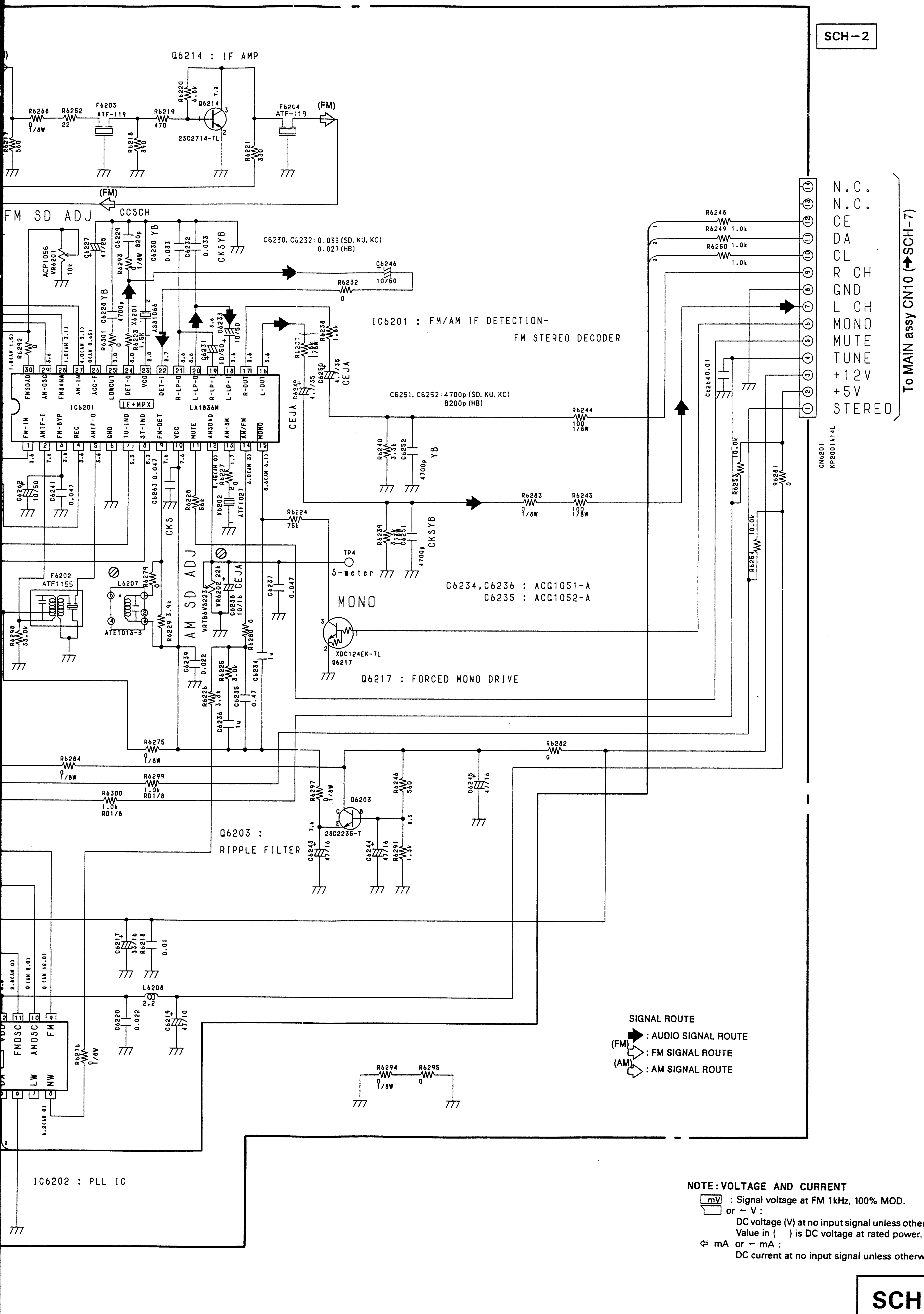
Line Voltage can be changed by the following modification:

1. Disconnect the AC power cord.
2. Remove the cover.
3. Change the connection of the power transformer primary taps.
4. Stick a line voltage label on the rear panel.

| Part No. | Description |
|---|---|
| AAX-193 | 220V label |
| AAX-192 | 240V label |

## (2). FM/AM TUNER MODULE


FM/AM TUNER MODULE (AXQ1012 : SD, KU, KC types)
(AXQ1013 : HB type)
FM F.E.
Q6101 : RF AMP
Q6101 3SK194-TL
F6101 ATF-155
Q6102 : MIX AMP
Q6102 2SC2223-TL
T6101 ATE-063-0-M
IF OUT
Q6213 : OSC
Q6103 2SC2714-TL
Q6104 : BUFFER AMP
Q6104 2SK302-TL
D6101 1T33-TL
D6102 1T33-TL
L6101 ATC1020
L6102 ATC1021
L6103 ATH1043-A-T
L6104 ATC1003
ANT
AGC
RF VT
OSC +B
MAIN +B
LOCAL OUT
OSC VT
T-meter
TP3
TP2
SD, KU, KC TYPES ONLY
AKA1016-A BN6201
FM 75ohm
AM
HB TYPE ONLY
AKA1017-A BN6201
FM 75ohm (PAL)
Q6204 : FM F.E. POWER SW
Q6204 XDA124EK-TL
FM
AXX1041
TXA
Q6201 2SK208-TL
Q6202 2SC2712-TL
Q6201,Q6202 : PLL LOOP FILTER DC AMP
TP1
VT
IC6202 LM7001J
PLL
X6203 ASS1042
FM SD
ACP1056 VR6201
(FM)
(AM)


Q6214 : IF AMP
R6268 0 1/8W
R6252 22
F6203 ATF-119
R6219 470
R6220 6.8k
Q6214
2SC2714-TL
R6218 390
R6221 330
F6204 ATF-119
(FM)
(FM)
FM SD ADJ
CCSCH
ACP1056 VR6201 10k
C6227 47/25
C6229 820p
C6230 YB
C6232 0.033
CKSYB
C6230, C6232 : 0.033 (SD, KU, KC) 0.027 (HB)
C6246 10/50
R6232 0
IC6201 : FM/AM IF DETECTION-FM STEREO DECODER
C6228 YB 4700p
X6201 ASS1066
R6223 1.5k
C6231 10/50
C6233 10/50
R6237 1.8k 1/8W
R6238 1.8k
C6250 4.7/35
CEJA
C6249 4.7/35
IC6201
LA1836M
IF+MPX
FMSDAD
AM-OSC
FMBANW
AM-IN
ACC-F
LOWCUT
DET-O
VCO
DET-I
R-LP-O
L-LP-O
R-LP-I
L-LP-I
R-OUT
L-OUT
FM-IN
AMIF-I
FM-BYP
REC
AMIF-O
GND
TU-IND
ST-IND
FM-DET
VCC
MUTE
AMSDAD
AM-SM
AM/FM
MONO
C6251, C6252 : 4700p (SD, KU, KC) 8200p (HB)
R6244 100 1/8W
R6240 3.3k
C6252 4700p YB
R6283 0 1/8W
R6243 100 1/8W
R6239 3.3k
C6251 4700p CKSYB
C6262 10/50
C6241 0.047
C6263 0.047
CKS
R6228 56k
R6227
X6202
ATF1027
R6224 75k
TP4
S-meter
C6234, C6236 : ACG1051-A
C6235 : ACG1052-A
F6202 ATF1155
L6207
ATE1013-B
R6279 0
R6229 3.9k
AM SD ADJ
VRTB6V3223
VR6202 22k
C6238 10/16
CEJA
R6280 0
C6237 0.047
MONO
XDC124EK-TL
Q6217
Q6217 : FORCED MONO DRIVE
R6298 33.0k
C6239 0.022
R6226 3.3k
C6236 1u
R6225 3.0k
C6235 0.47
C6234 1u
R6275 0 1/8W
R6284 0 1/8W
R6299 1.0k RD1/8
R6300 1.0k RD1/8
R6282 0
R6297 0 1/8W
Q6203
2SC2235-T
R6246 560
C6245 47/16
C6243 47/16
C6244 47/16
R6291 1.3k
Q6203 : RIPPLE FILTER
R6248
R6249 1.0k
R6250 1.0k
1.0k
CN6201
KP200IA14L
R6253 10.0k
R6281 0
R6254 10.0k
C6264 0.01
N.C.
N.C.
CE
DA
CL
R CH
GND
L CH
MONO
MUTE
TUNE
+12V
+5V
STEREO
To MAIN assy CN10 (→SCH-7)
C6217 33/16
R6218
0.01
L6208 2.2
C6220 0.022
C6219 47/10
FMOSC
AMOSC
FM
LW
MW
R6276 0 1/8W
R6294 0 1/8W
R6295 0
IC6202 : PLL IC
SIGNAL ROUTE
: AUDIO SIGNAL ROUTE
(FM) : FM SIGNAL ROUTE
(AM) : AM SIGNAL ROUTE

**NOTE: VOLTAGE AND CURRENT**

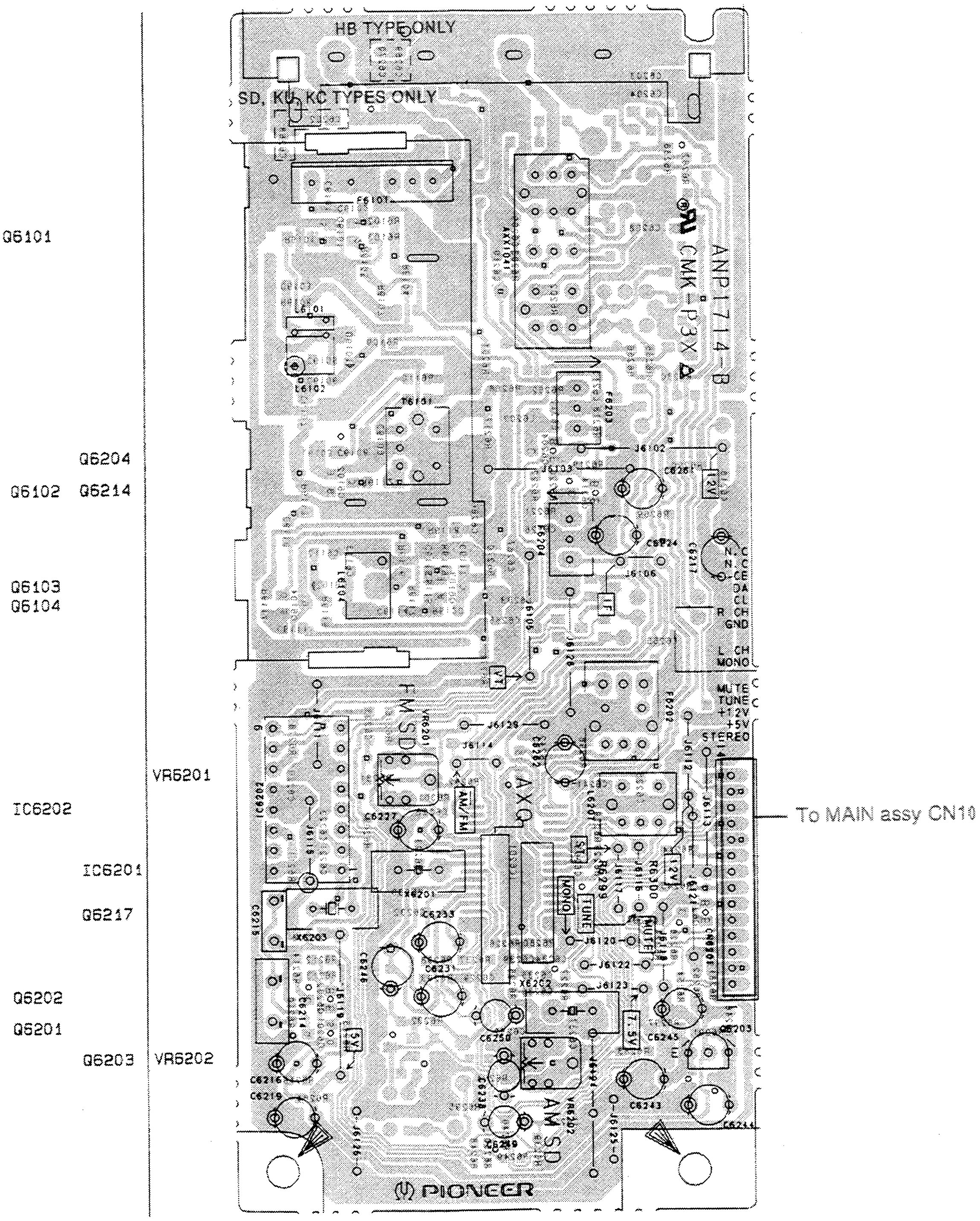
mV : Signal voltage at FM 1kHz, 100% MOD.

or − V :
DC voltage (V) at no input signal unless otherwise noted.
Value in ( ) is DC voltage at rated power.

⇦ mA or − mA :
DC current at no input signal unless otherwise noted.

A

## FM/AM TUNER MODULE


HB TYPE ONLY
SD, KU, KC TYPES ONLY
F6101
ANP1714-B
CMK-P3X
Q6101
Q6204
Q6102
Q6214
Q6103
Q6104
N.C
N.C
CE
DA
CL
R CH
GND
L CH
MONO
MUTE
TUNE
+12V
+5V
STEREO
FM SD
VR6201
AM/FM
AXQ
12V
IC6202
IC6201
Q6217
MONO
TUNE
MUTE
7.5V
5V
Q6202
Q6201
Q6203
VR6202
AM SD
PIONEER
To MAIN assy CN10

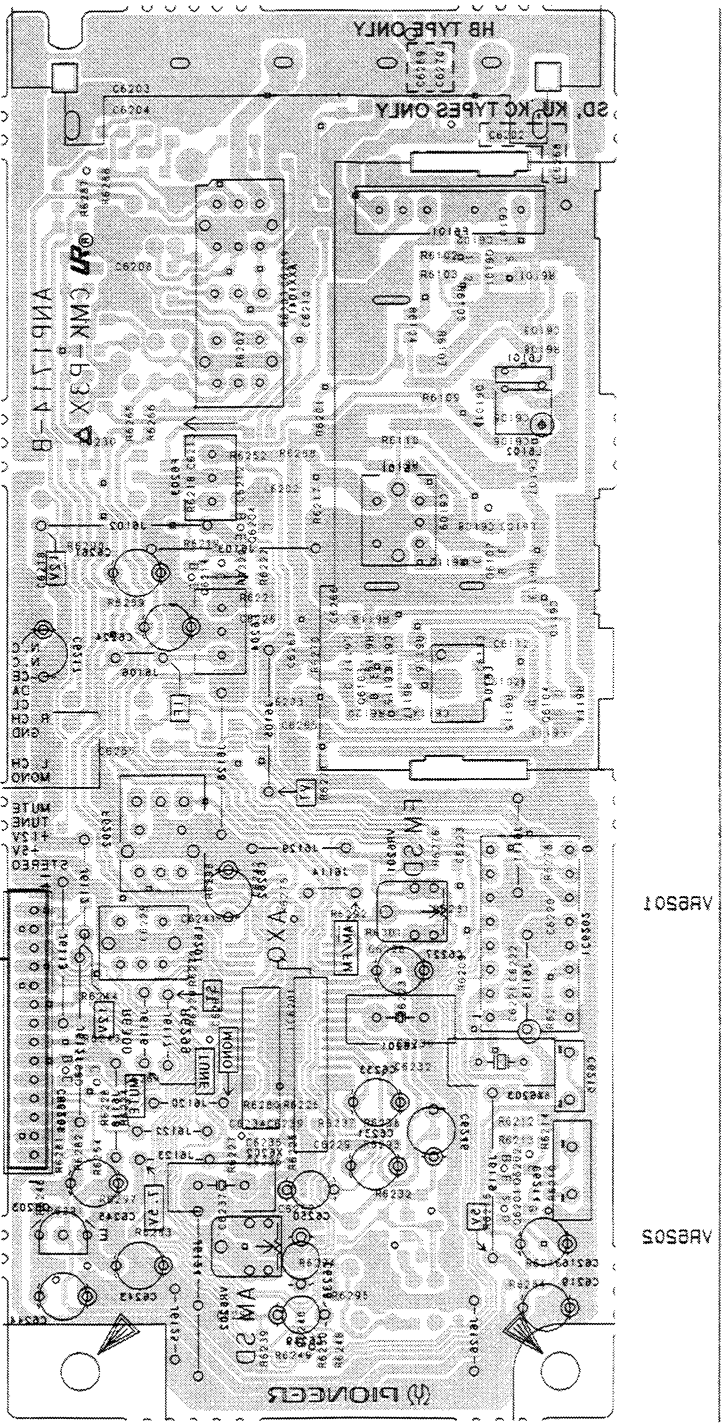
B

C

D

- This diagram is viewed from the mounted parts side.

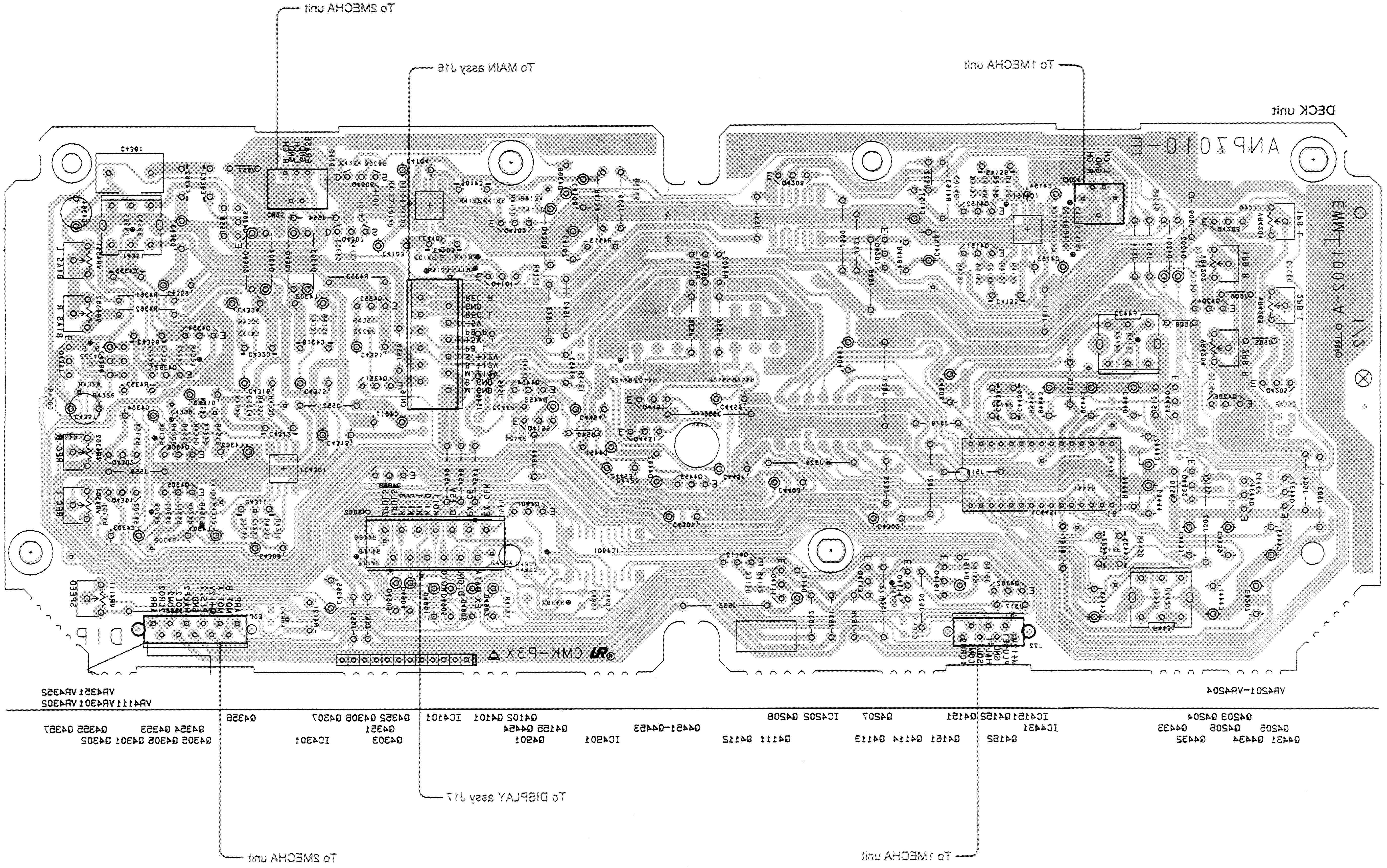
## FM/AM TUNER MODULE


HB TYPE ONLY
SD, KU, KC TYPES ONLY
ANP1714-B
CMK-P3X
To MAIN assy CN10
N.C
N.C
CE
DA
CL
R CH
GND
L CH
MONO
MUTE
TUNE
+12V
+5V
STEREO
FM SD
AM SD
MONO
TUNE
MUTE
ST
AM
PIONEER
Q6101
Q6204
Q6102
Q6214
Q6103
Q6104
VR6201
IC6202
IC6201
Q6217
Q6202
Q6201
VR6202
Q6203
A
B
C
D

- This diagram is viewed from the foil side.

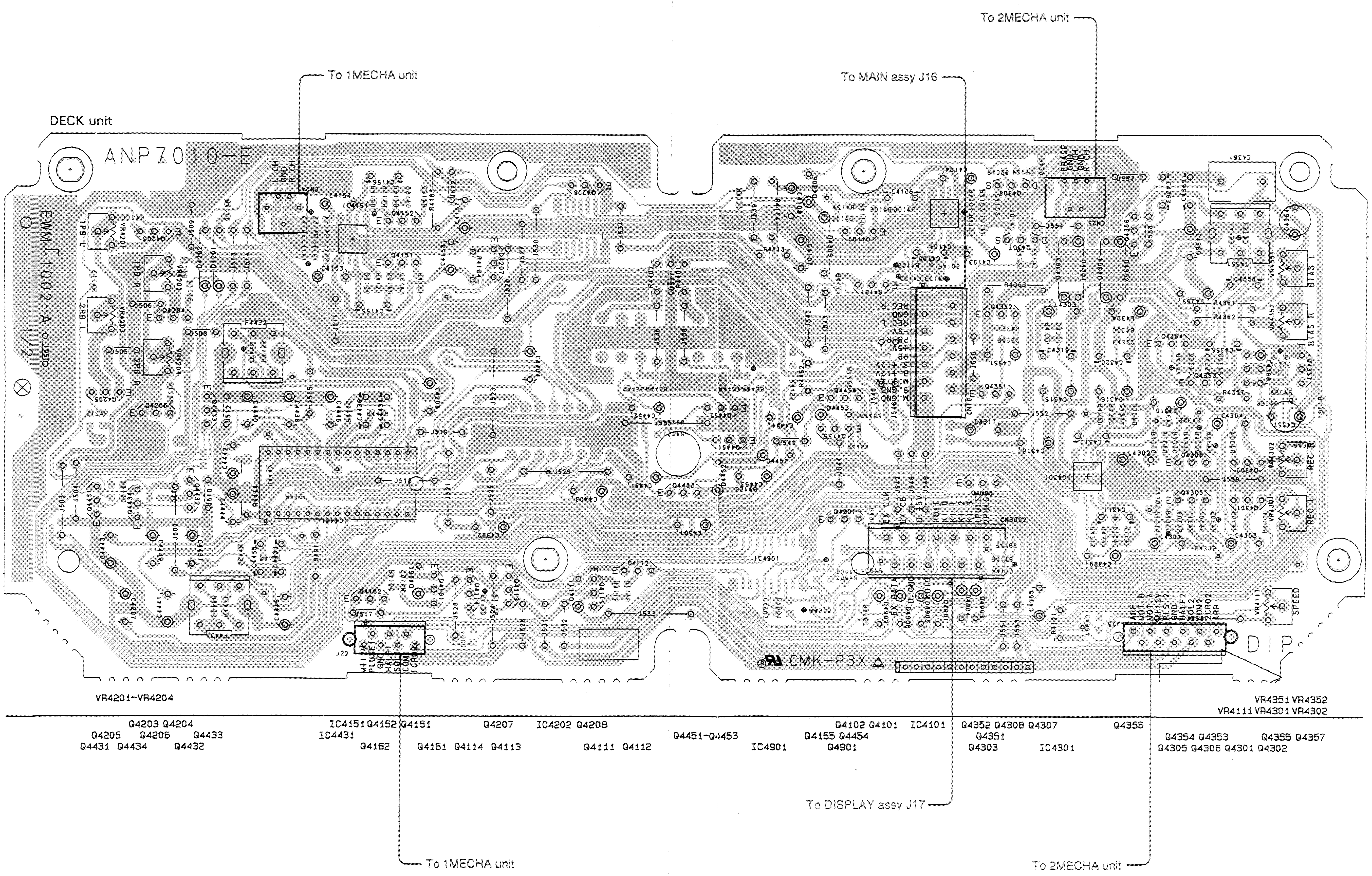
## (3). DECK UNIT

- This diagram is viewed from the foil side.


To 2MECHA unit
To MAIN assy J16
To 1MECHA unit
DECK unit
ANP7010-E
CMK-P3X
To DISPLAY assy J17
To 2MECHA unit
To 1MECHA unit
VR4351 VR4352
VR4111 VR4301 VR4302
VR4201–VR4204
Q4356
Q4355 Q4357
Q4354 Q4353
Q4305 Q4306 Q4301 Q4302
Q4352 Q4308 Q4307
Q4351
Q4303
IC4301
IC4101
Q4102 Q4101
Q4155 Q4454
Q4901
IC4901
Q4451–Q4453
IC4202 Q4208
Q4111 Q4112
Q4207
Q4161 Q4114 Q4113
IC4151 Q4152 Q4151
IC4431
Q4162
Q4203 Q4204
Q4205 Q4206 Q4433
Q4431 Q4434 Q4432

## (3). DECK UNIT

- This diagram is viewed from the mounted parts side.


To 1MECHA unit
To MAIN assy J16
To 2MECHA unit
DECK unit
ANP7010-E
EWM-1002-A 1/2
CMK-P3X
DIP
BIAS L
BIAS R
REC R
REC L
SPEED
VR4201-VR4204
VR4351 VR4352
VR4111 VR4301 VR4302
Q4203 Q4204
Q4205 Q4206 Q4433
Q4431 Q4434 Q4432
IC4151 Q4152 Q4151
IC4431
Q4162
Q4207
Q4161 Q4114 Q4113
IC4202 Q4208
Q4111 Q4112
Q4451-Q4453
IC4901
Q4102 Q4101 IC4101
Q4155 Q4454
Q4901
Q4352 Q4308 Q4307
Q4351
Q4303
IC4301
Q4356
Q4354 Q4353 Q4355 Q4357
Q4305 Q4306 Q4301 Q4302
To DISPLAY assy J17
To 1MECHA unit
To 2MECHA unit

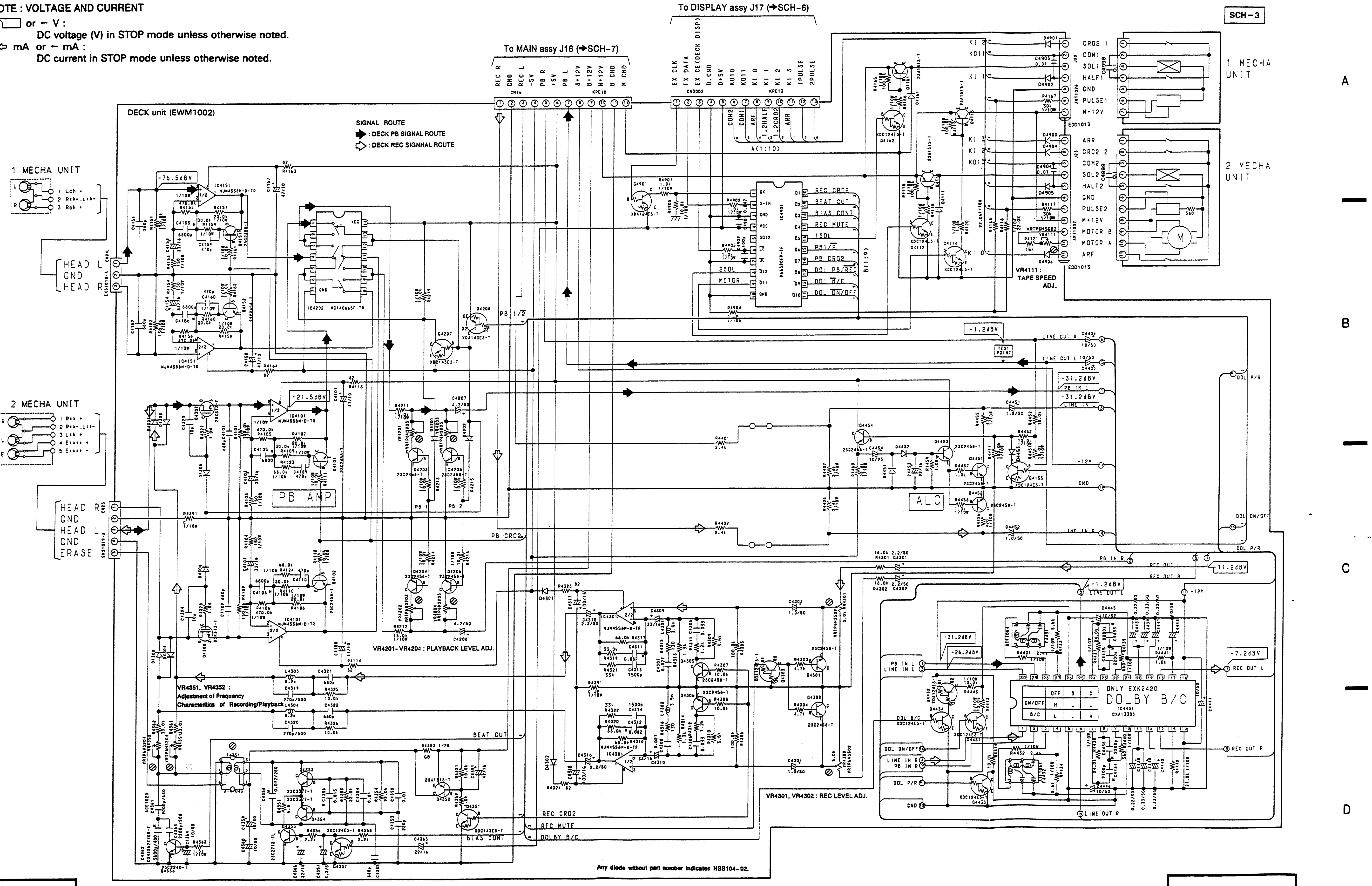
NOTE : VOLTAGE AND CURRENT

▭ or ⌐ V :

DC voltage (V) in STOP mode unless otherwise noted.

⇦ mA or ⌐ mA :

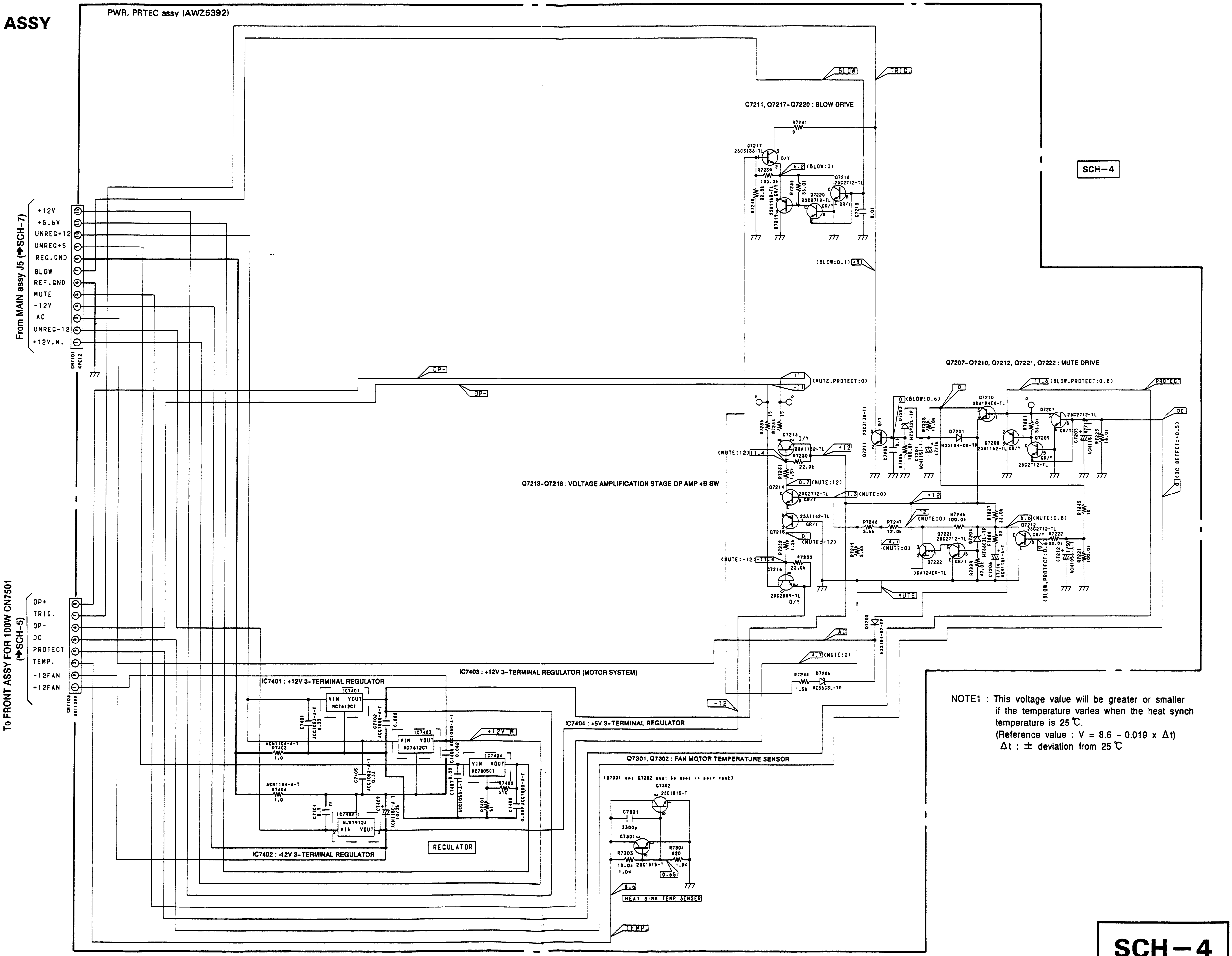
DC current in STOP mode unless otherwise noted.


SCH-3
To DISPLAY assy J17 (➔SCH-6)
To MAIN assy J16 (➔SCH-7)
DECK unit (EWM1002)
SIGNAL ROUTE
➔ : DECK PB SIGNAL ROUTE
⇨ : DECK REC SIGNAL ROUTE
REC R
GND
REC L
-5V
PB R
+5V
PB L
S+12V
B+12V
M+12V
B GND
M GND
CN16
KPE12
EX CLK
EX DATA
EX CE(DECK DISP)
D.GND
D+5V
KO10
KO11
KI 0
KI 1
KI 2
KI 3
1PULSE
2PULSE
CN3002
KPE13
COM2
COM1
ARF
1,2HALF
1,2CRO2
ARR
1PULSE
2PULSE
A(1:10)
B(1:9)
1 MECHA UNIT
1 Lch +
2 Rch-,Lch-
3 Rch +
2 MECHA UNIT
1 Rch +
2 Rch-,Lch-
3 Lch +
4 Erase +
5 Erase -
HEAD L
GND
HEAD R
HEAD R
GND
HEAD L
GND
ERASE
-76.5dBV
-21.5dBV
IC4151 NJM4558M-D-TR
IC4101 NJM4558M-D-TR
IC4202 MC14066BF-TR
PB AMP
PB 1/2
PB 1
PB 2
PB CRO2
VR4201-VR4204 : PLAYBACK LEVEL ADJ.
VR4351, VR4352 : Adjustment of Frequency Characteristics of Recording/Playback
BEAT CUT
REC CRO2
REC MUTE
DOLBY B/C
BIAS CONT
IC4301 NJM4558M-D-TR
VR4301, VR4302 : REC LEVEL ADJ.
Any diode without part number indicates HSS104-02.
IC4901 M63020FP-TF
REC CRO2
BEAT CUT
BIAS CONT
REC MUTE
1SOL
PB1/2
PB CRO2
DOL PB/REC
DOL B/C
DOL ON/OFF
2SOL
MOTOR
CK
S-IN
GND
VCC
SO12
D1
D2
D3
D4
D5
D6
D7
D8
D9
D10
D11
D12
CRO2 1
COM1
SOL1
HALF1
GND
PULSE1
M+12V
1 MECHA UNIT
ARR
CRO2 2
COM2
SOL2
HALF2
GND
PULSE2
M+12V
MOTOR B
MOTOR A
ARF
2 MECHA UNIT
VR4111 : TAPE SPEED ADJ.
VRTP6H5682
EDD1013
-1.2dBV
TEST POINT
LINE CUT R
LINE CUT L
-31.2dBV
PB IN L
-31.2dBV
LINE IN L
ALC
+12V
GND
LINE IN R
PB IN R
REC OUT L
REC OUT R
-11.2dBV
-1.2dBV
LINE OUT L
DOL P/R
DOL ON/OFF
DOL P/R
-31.2dBV
-26.2dBV
PB IN L
LINE IN L
ONLY EXK2420
DOLBY B/C
IC4431 CXA1330S
ON/OFF
B/C
OFF
B
C
H
L
L
L
L
H
-7.2dBV
REC OUT L
REC OUT R
DOL B/C
DOL ON/OFF
LINE IN R
PB IN R
DOL P/R
GND
LINE OUT R
XDC124E3-T
2SC2458-T
2SA1515-T
2SC2240-T
2SC3377-T

**SCH-3**

DECK UNIT

## (4). PWR, PRTEC ASSY


PWR, PRTEC assy (AWZ5392)
From MAIN assy J5 (→SCH-7)
+12V
+5.6V
UNREC+12
UNREC+5
REC.GND
BLOW
REF.GND
MUTE
-12V
AC
UNREC-12
+12V.M.
CN7101
To FRONT ASSY FOR 100W CN7501 (→SCH-5)
OP+
TRIG.
OP-
DC
PROTECT
TEMP.
-12FAN
+12FAN
CN7103
BLOW
TRIG.
Q7211, Q7217-Q7220 : BLOW DRIVE
R7241
0
Q7217
2SC3138-TL
D/Y
R7239
100.0k
6.2 (BLOW:0)
R7240
22.0k
R7238
56.0k
2SA1162-TL
GR/Y
Q7219
Q7220
2SC2712-TL
GR/Y
Q7218
2SC2712-TL
GR/Y
C7213
0.01
(BLOW:0.1) +B1
SCH-4
OP+
OP-
11
-11
(MUTE,PROTECT:0)
P
R7235
R7234
15
Q7213
O/Y
2SA1162-TL
(MUTE:12) 11.4
R7230
22.0k
+12
R7231
1.5k
0.7 (MUTE:12)
Q7214
2SC2712-TL
GR/Y
1.3 (MUTE:0)
Q7215
2SA1162-TL
GR/Y
0 (MUTE:-12)
R7232
1.5k
(MUTE:-12) -11.4
R7233
22.0k
Q7216
2SC2859-TL
O/Y
Q7213-Q7216 : VOLTAGE AMPLIFICATION STAGE OP AMP +B SW
Q7207-Q7210, Q7212, Q7221, Q7222 : MUTE DRIVE
Q7211
2SC3138-TL
O/Y
C7206
0.1
R7226
100.0k
0 (BLOW:0.6)
D7203
HZ39A2L-TP
R7225
47.0k
C7207
ACH1151-A-T
47/16
0
D7201
HSS104-02-TP
Q7210
XDA124EK-TL
Q7208
2SA1162-TL
GR/Y
11.8 (BLOW,PROTECT:0.8)
PROTECT
R7224
56.0k
Q7207
2SC2712-TL
GR/Y
Q7209
2SC2712-TL
GR/Y
C7205
ACH1151-A-T
47/16
R7223
18.0k
DC
(DC DETECT:+0.5)
0
+12
12 (MUTE:0)
R7248
5.6k
R7247
12.0k
R7249
5.6k
4.7 (MUTE:0)
R7246
100.0k
Q7222
XDA124EK-TL
Q7221
2SC2712-TL
GR/Y
R7229
47.0k
D7204
HZ36C3L-TP
R7228
22
C7208
ACH1151-A-T
47/16
R7227
33.0k
6.6 (MUTE:0.8)
Q7212
2SC2712-TL
GR/Y
R7222
22.0k
0 (BLOW,PROTECT:0.6)
C7212
ACH1056-A-T
1/50
R7221
100.0k
R7245
10
MUTE
D7205
HSS104-02-TP
AC
4.7 (MUTE:0)
R7244
1.5k
D7206
HZ36C3L-TP
-12
IC7401 : +12V 3-TERMINAL REGULATOR
IC7401
VIN VOUT
MC7812CT
C7401
ACC1053-A-T
0.33
C7402
ACC1050-A-T
0.082
ACN1104-A-T
R7403
1.0
IC7403
VIN VOUT
MC7812CT
+12V M
C7406
ACC1050-A-T
0.082
C7405
ACC1053-A-T
0.33
IC7404
VIN VOUT
MC7805CT
C7407
ACC1053-A-T
0.33
R7402
510
R7401
51
C7408
ACC1050-A-T
0.082
ACN1104-A-T
R7404
1.0
C7404
0.1
YF
IC7402
NJM7912A
VIN VOUT
C7409
ACH1150-A-T
10/35
REGULATOR
IC7402 : -12V 3-TERMINAL REGULATOR
IC7403 : +12V 3-TERMINAL REGULATOR (MOTOR SYSTEM)
IC7404 : +5V 3-TERMINAL REGULATOR
Q7301, Q7302 : FAN MOTOR TEMPERATURE SENSOR
(Q7301 and Q7302 must be used in pair rank)
Q7302
2SC1815-T
C7301
3300p
Q7301
R7303
10.0k
1.0%
2SC1815-T
R7304
820
1.0%
0.65
8.6
HEAT SINK TEMP SENSER
TEMP.

NOTE1 : This voltage value will be greater or smaller
if the temperature varies when the heat synch
temperature is 25℃.
(Reference value : V = 8.6 - 0.019 x Δt)
Δt : ± deviation from 25℃

**SCH−4**

PWR, PRTEC ASSY

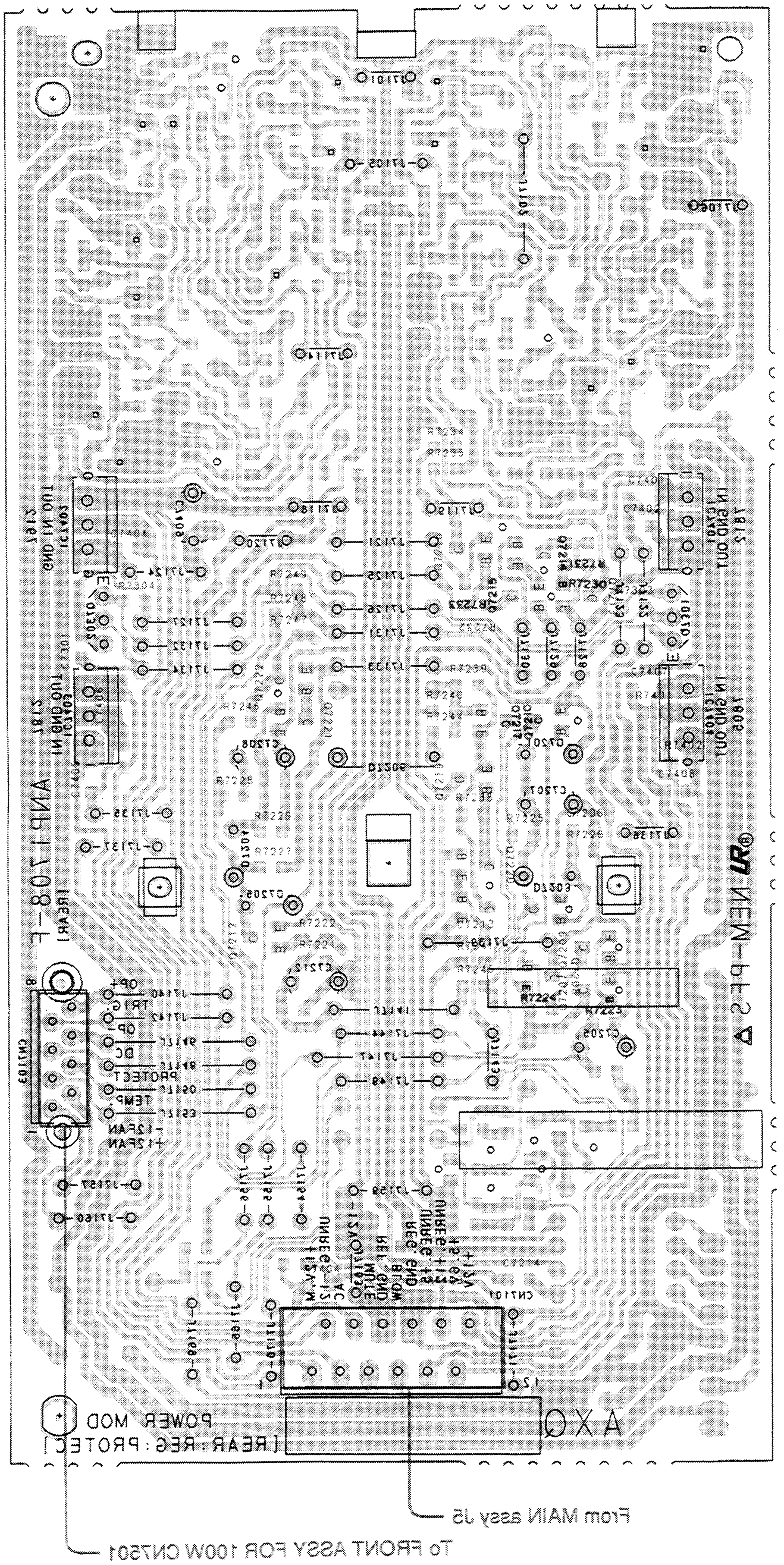
**SCH−4**

PWR, PRTEC ASSY

- This diagram is viewed from the foil side.

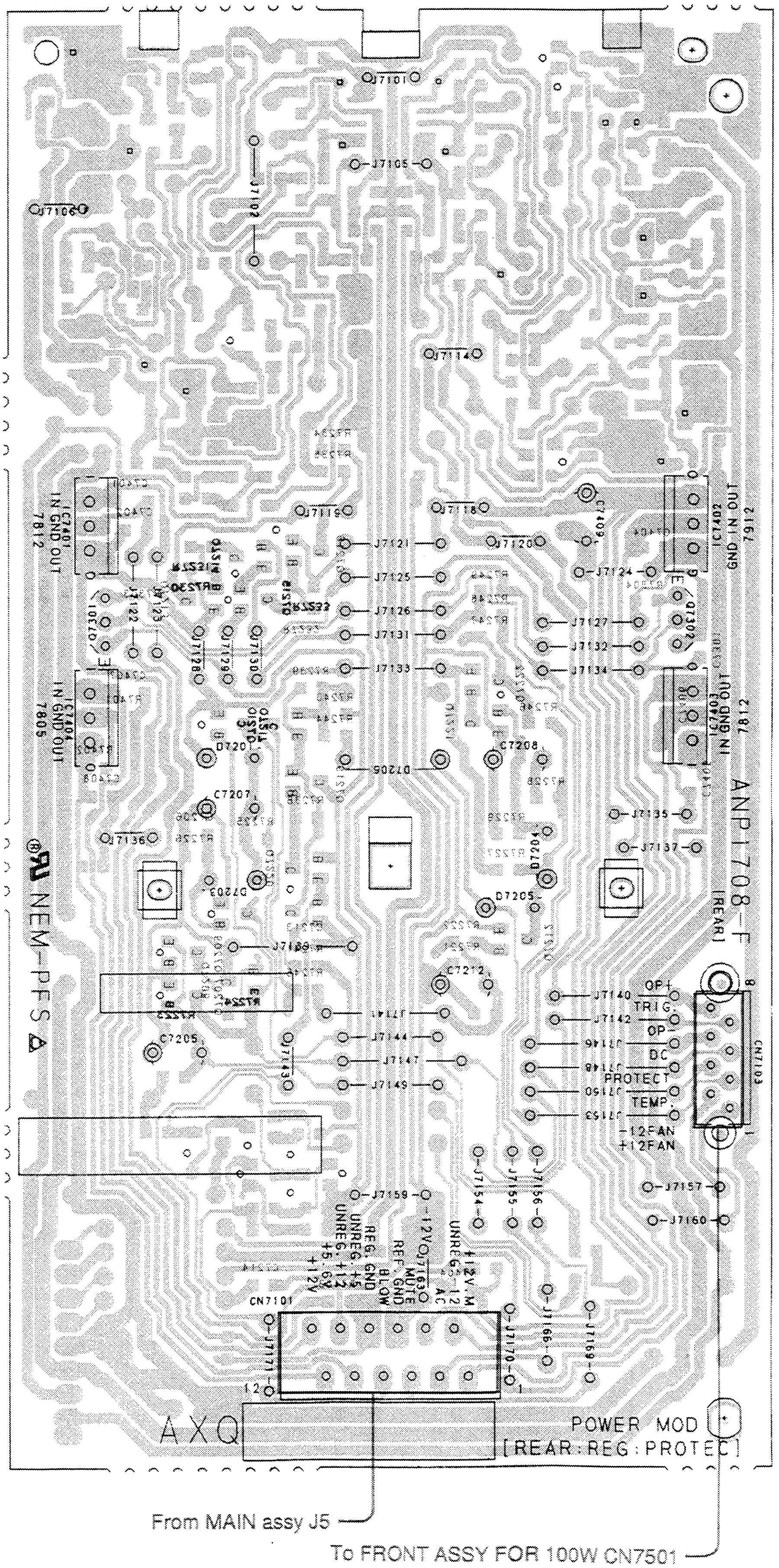
PWR, PRTEC assy

IC7401 IC7402
Q7214 Q7216
Q7213 Q7215
Q7301 Q7302
Q7222
IC7404 Q7221 IC7403
Q7210 Q7217
Q7219
Q7220
Q7207 – Q7208 Q7212


ANP1708-F
[REAR]
[REAR:REG:PROTEC]
POWER MOD
AXO
NEW-PF5
CN7102
CN7101
IC7401
IC7402
IC7403
IC7404
+OP
TRIG
-OP
DC
PROTECT
TEMP
-12FAN
+12FAN
UNREG +12V
-12V
AC
REF GND
MUTE
MOM
REG GND
UNREG+6.3V
+5.6V
+12V
D7206
D7303
R7224
R7223
From MAIN assy J5
To FRONT ASSY FOR 100W CN7501

- This diagram is viewed from the mounted parts side.

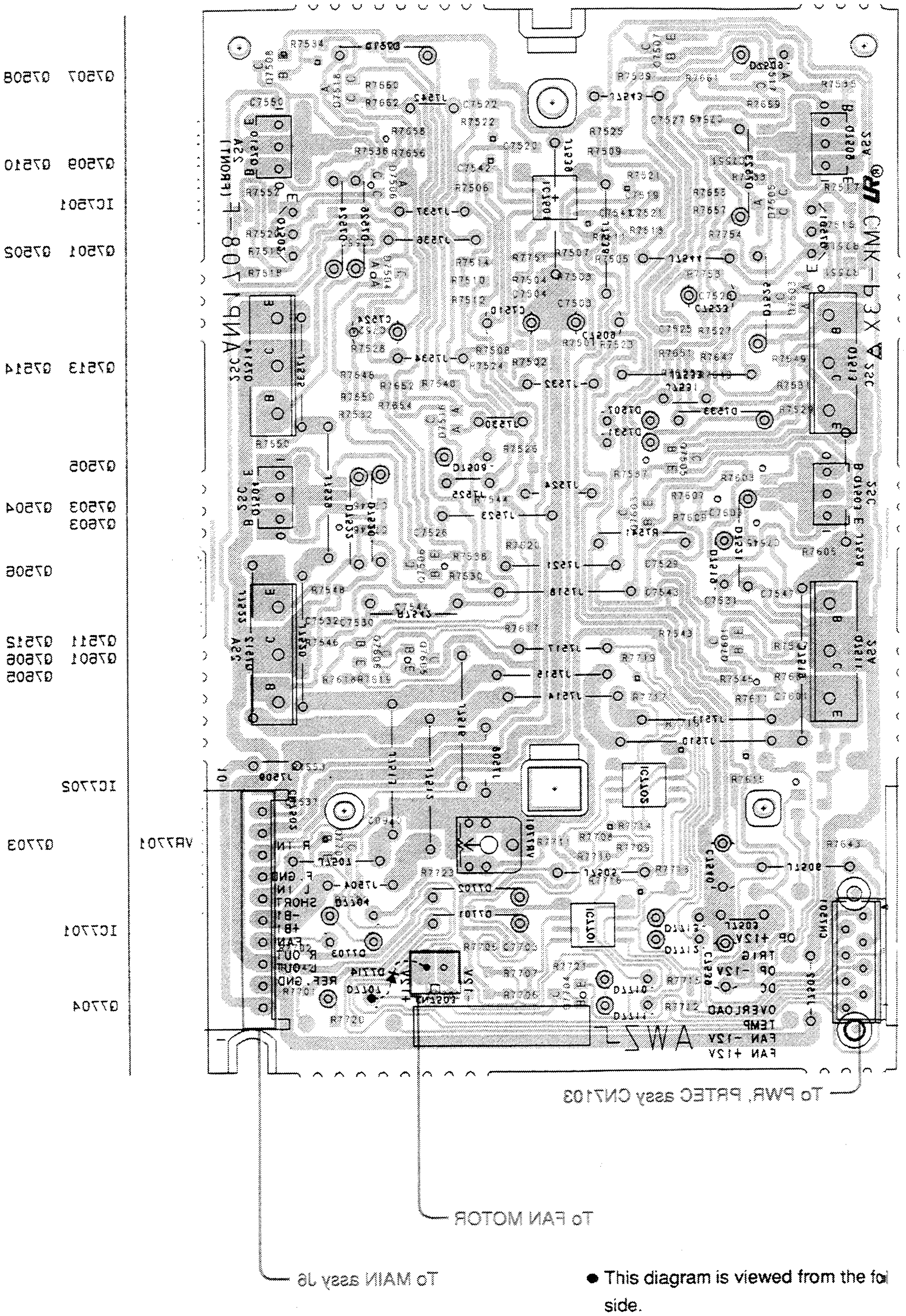
PWR, PRTEC assy


A
B
C
D
J7101
J7105
J7102
J7106
J7114
J7116
J7118
J7120
J7121
J7125
J7126
J7131
J7133
J7124
J7127
J7132
J7134
IC7401
IN GND OUT
7812
IC7404
IN GND OUT
7805
IC7402
GND IN OUT
7912
IC7403
IN GND OUT
7812
D7205
D7206
C7207
C7208
D7204
C7205
C7212
J7136
J7135
J7137
J7139
J7141
J7144
J7147
J7149
J7143
ANP1708-F
[REAR]
NEM-PFS
CN7103
OP+
TRIG.
OP-
DC
PROTECT
TEMP
-12FAN
+12FAN
J7140
J7142
J7157
J7160
J7159
J7154
J7155
J7156
CN7101
REG. GND
UNREG.+5
UNREG.+12
+5.6V
+12V
-12V
MUTE
REF. GND
BLOW
+12V M
UNREG.-12
AC
J7163
J7166
J7169
J7170
J7171
12
1
AXQ
POWER MOD
[REAR:REG:PROTEC]
From MAIN assy J5
To FRONT ASSY FOR 100W CN7501

IC7401 IC7402
Q7214 Q7216
Q7213 Q7215 Q7302
Q7301
Q7222
IC7404 Q7221 IC7403
Q7210 Q7217
Q7219
Q7220
Q7212
Q7207
|
Q7209

## (5). FRONT ASSY FOR 100W

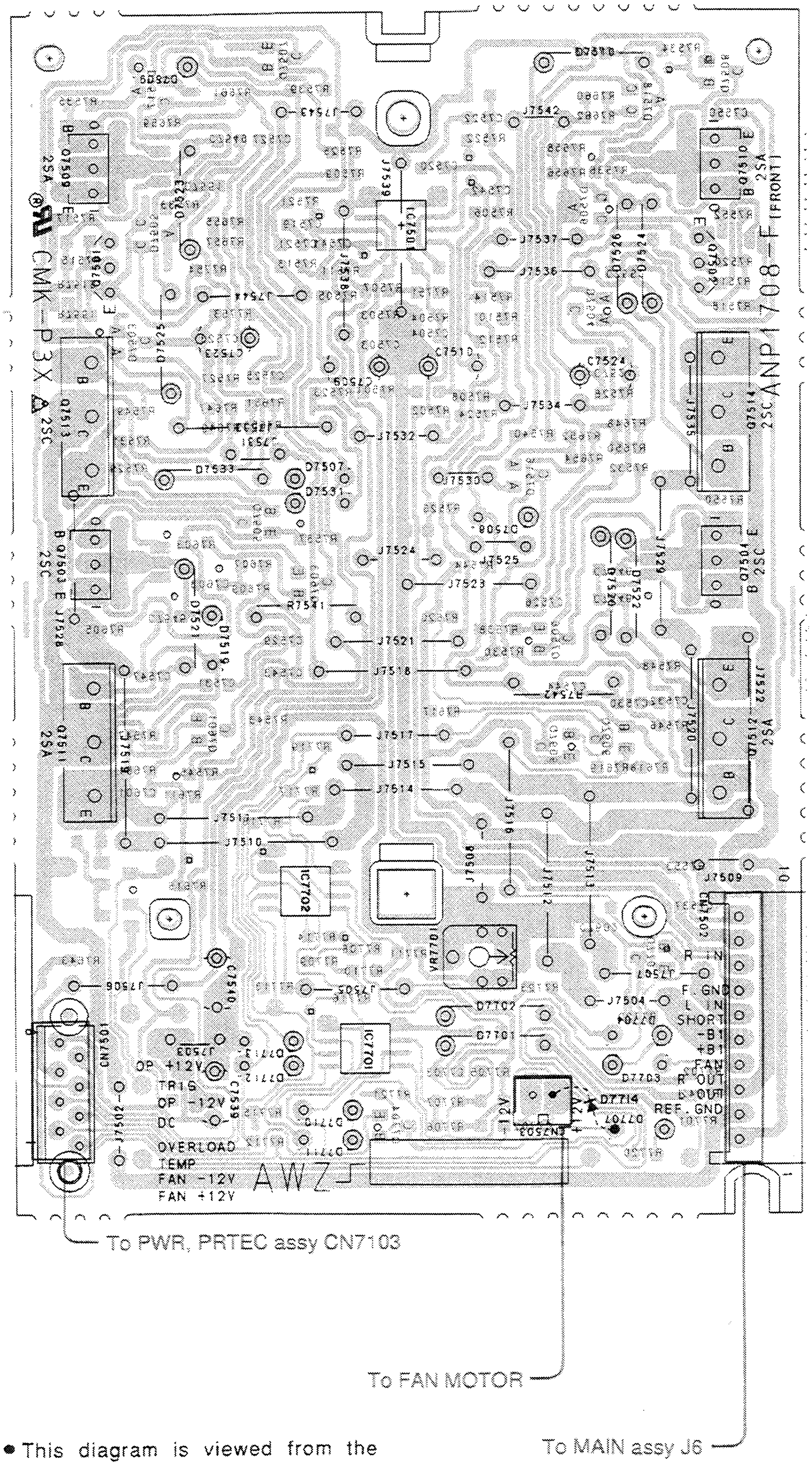
FRONT ASSY FOR 100W


A
B
C
D
Q7507 Q7508
Q7509 Q7510
IC7501
Q7501 Q7502
Q7513 Q7514
Q7505
Q7503 Q7504
Q7603
Q7506
Q7511 Q7512
Q7601 Q7606
Q7605
IC7702
VR7701
Q7703
IC7701
Q7704
R IN
F.GND
L IN
SHORT
-B1
+B1
FAN
R OUT
L OUT
REF.GND
OP +12V
TRIG
OP -12V
DC
OVERLOAD
TEMP
FAN -12V
FAN +12V
To PWR, PRTEC assy CN7103
To FAN MOTOR
To MAIN assy J6

- This diagram is viewed from the foil side.

## (5). FRONT ASSY FOR 100W

FRONT ASSY FOR 100W


CMK-P3X
ANP1708-F (FRONT)
IC7501
IC7702
IC7701
VR7701
CN7501
CN7502
CN7503
OP +12V
TRIG
OP -12V
DC
OVERLOAD
TEMP
FAN -12V
FAN +12V
R IN
F. GND
L IN
SHORT
-B1
+B1
FAN
R OUT
L OUT
REF. GND
D7714
AWZ
To PWR, PRTEC assy CN7103
To FAN MOTOR
To MAIN assy J6

A

Q7507 Q7508

Q7509 Q7510

IC7501

Q7501 Q7502

Q7513 Q7514

B

Q7505

Q7503 Q7504
Q7603

Q7506

Q7511 Q7512
Q7601 Q7606
Q7605

IC7702

C

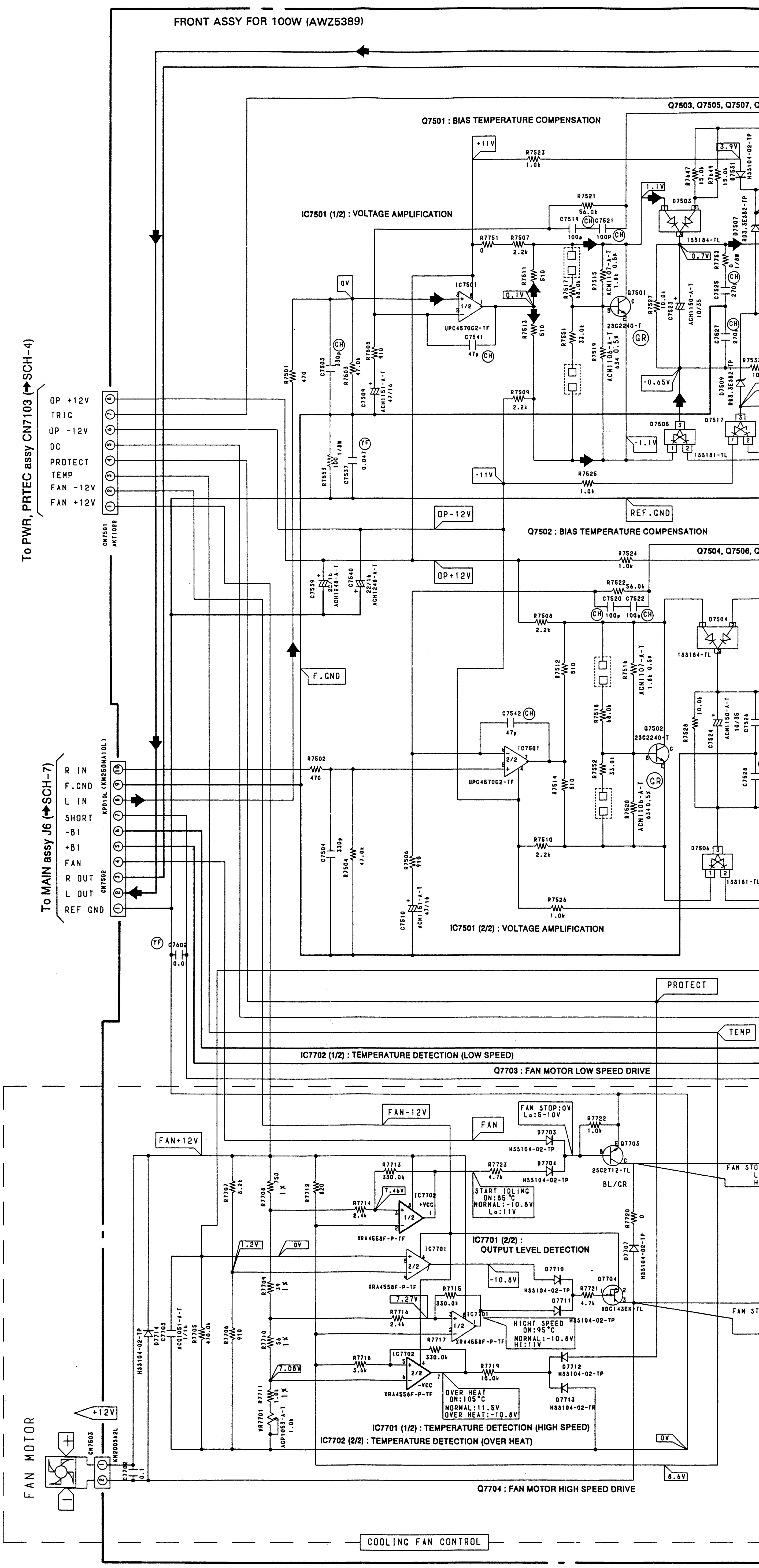
VR7701 Q7703

IC7701

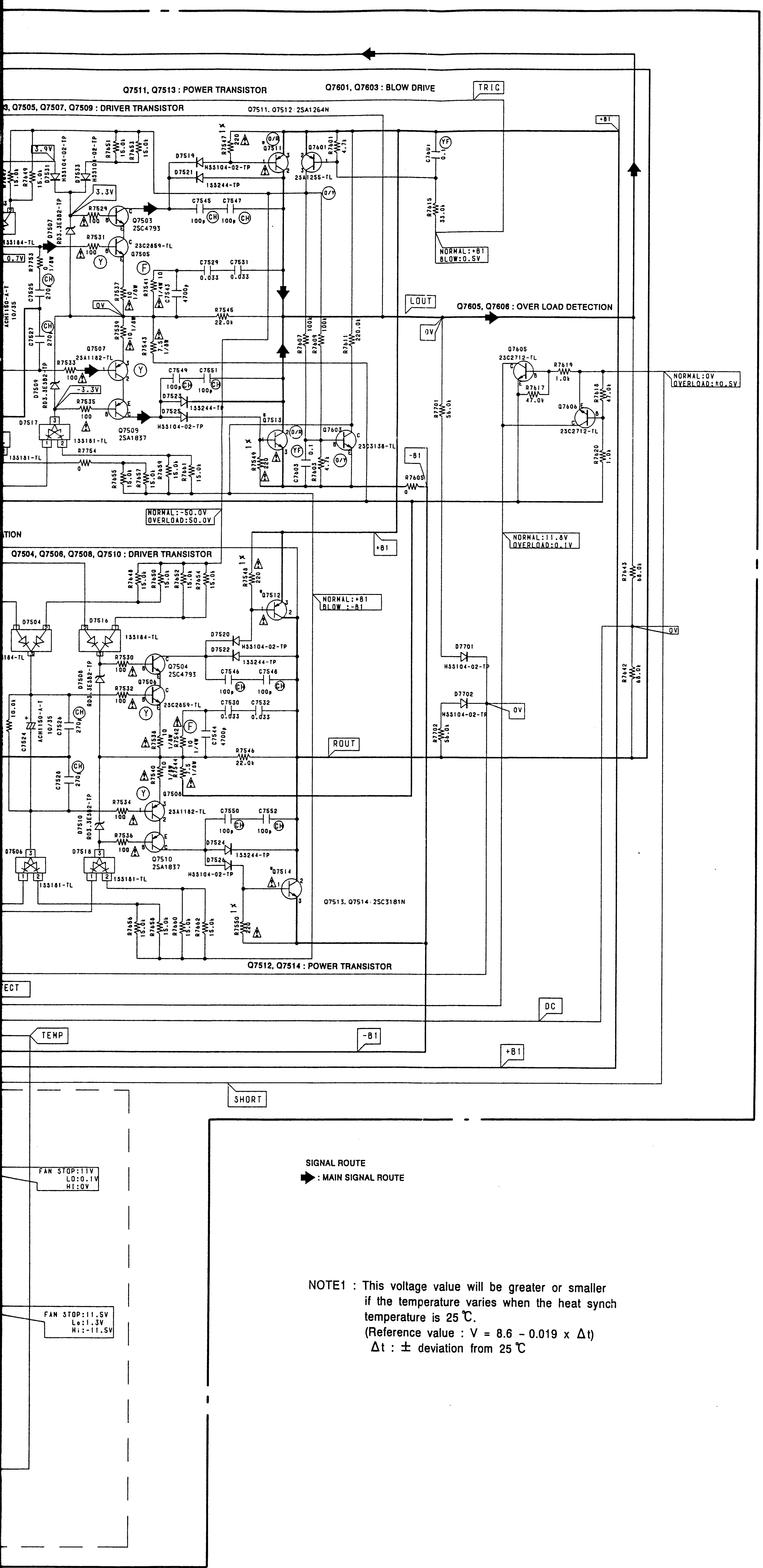
Q7704

D

- This diagram is viewed from the mounted parts side.


FRONT ASSY FOR 100W (AWZ5389)
Q7501 : BIAS TEMPERATURE COMPENSATION
Q7503, Q7505, Q7507, C
IC7501 (1/2) : VOLTAGE AMPLIFICATION
IC7501 (2/2) : VOLTAGE AMPLIFICATION
Q7502 : BIAS TEMPERATURE COMPENSATION
Q7504, Q7506, C
UPC4570C2-TF
2SC2240-T
1SS184-TL
1SS181-TL
REF.GND
OP-12V
OP+12V
F.GND
+11V
-11V
0V
0.1V
-0.65V
-1.1V
1.1V
0.7V
3.9V
To PWR, PRTEC assy CN7103 (→SCH-4)
OP +12V
TRIG
OP -12V
DC
PROTECT
TEMP
FAN -12V
FAN +12V
CN7501 AKT1022
To MAIN assy J6 (→SCH-7)
R IN
F.GND
L IN
SHORT
-B1
+B1
FAN
R OUT
L OUT
REF GND
CN7502 XP010L (KM250NA10L)
PROTECT
TEMP
IC7702 (1/2) : TEMPERATURE DETECTION (LOW SPEED)
Q7703 : FAN MOTOR LOW SPEED DRIVE
FAN-12V
FAN+12V
FAN
FAN STOP:0V Lo:5-10V
START IDLING ON:85°C NORMAL:-10.8V Lo:11V
2SC2712-TL
BL/GR
XRA4558F-P-TF
IC7701 (2/2) : OUTPUT LEVEL DETECTION
HIGHT SPEED ON:95°C NORMAL:-10.8V HI:11V
OVER HEAT ON:105°C NORMAL:11.5V OVER HEAT:-10.8V
XDC143EK-TL
H33104-02-TP
IC7701 (1/2) : TEMPERATURE DETECTION (HIGH SPEED)
IC7702 (2/2) : TEMPERATURE DETECTION (OVER HEAT)
Q7704 : FAN MOTOR HIGH SPEED DRIVE
7.46V
7.27V
7.08V
1.2V
-10.8V
8.6V
+12V
FAN MOTOR
CN7503 KM200NA2L
COOLING FAN CONTROL
FAN STO
FAN ST

SCH−5

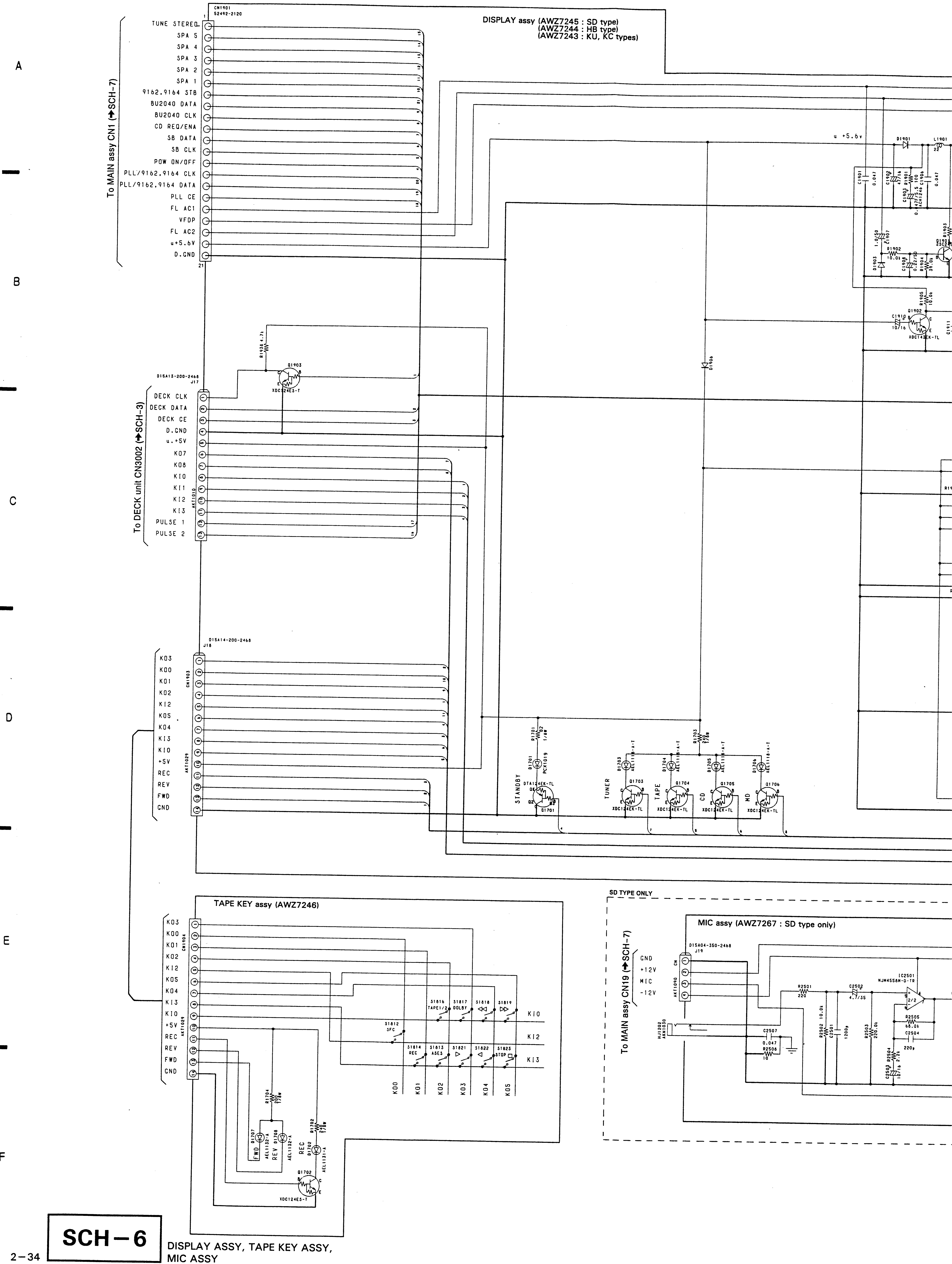

Q7511, Q7513 : POWER TRANSISTOR
Q7601, Q7603 : BLOW DRIVE
TRIG
Q7505, Q7507, Q7509 : DRIVER TRANSISTOR
Q7511, Q7512 : 2SA1264N
+B1
NORMAL : +B1
BLOW : 0.5V
LOUT
Q7605, Q7606 : OVER LOAD DETECTION
0V
Q7605 2SC2712-TL
Q7606 2SC2712-TL
NORMAL : 0V
OVERLOAD : ±0.5V
-B1
NORMAL : -50.0V
OVERLOAD : 50.0V
NORMAL : 11.8V
OVERLOAD : 0.1V
Q7504, Q7506, Q7508, Q7510 : DRIVER TRANSISTOR
NORMAL : +B1
BLOW : -B1
Q7503 2SC4793
Q7505 2SC2859-TL
Q7507 2SA1182-TL
Q7509 2SA1837
Q7504 2SC4793
Q7506 2SC2859-TL
Q7508 2SA1182-TL
Q7510 2SA1837
Q7601 2SA1255-TL
Q7603 2SC3138-TL
Q7513, Q7514 : 2SC3181N
D7701 HZS104-02-TP
D7702 HZS104-02-TP
ROUT
Q7512, Q7514 : POWER TRANSISTOR
DC
TEMP
-B1
+B1
SHORT
FAN STOP : 11V
LO : 0.1V
HI : 0V
FAN STOP : 11.5V
Lo : 1.3V
Hi : -11.5V

SIGNAL ROUTE

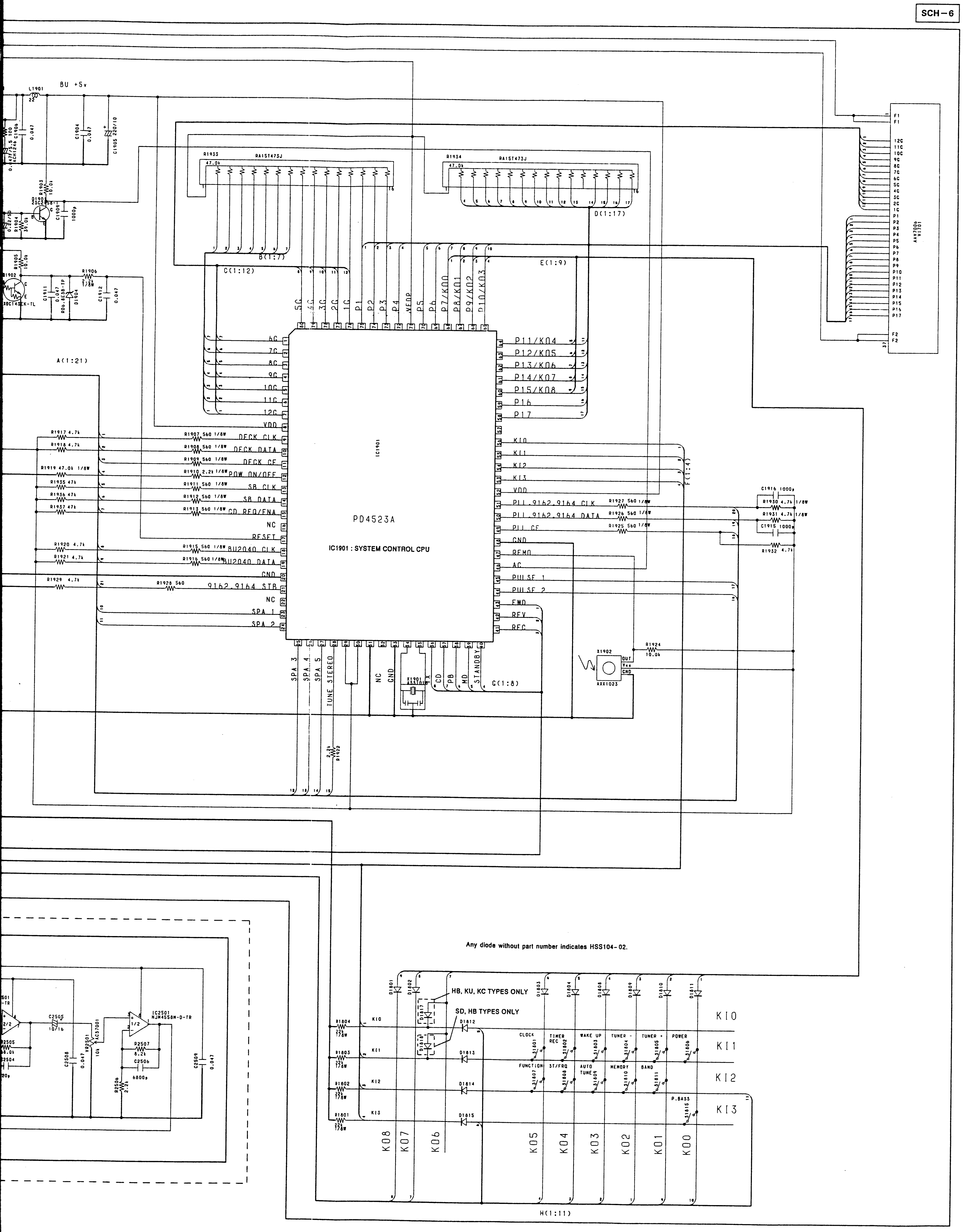
➡ : MAIN SIGNAL ROUTE

NOTE1 : This voltage value will be greater or smaller if the temperature varies when the heat synch temperature is 25 ℃.
(Reference value : V = 8.6 − 0.019 x Δt)
Δt : ± deviation from 25 ℃

## (6). DISPLAY ASSY, TAPE KEY ASSY AND MIC ASSY


DISPLAY assy (AWZ7245 : SD type)
(AWZ7244 : HB type)
(AWZ7243 : KU, KC types)
CN1901
52492-2120
To MAIN assy CN1 (→SCH-7)
TUNE STEREO
SPA 5
SPA 4
SPA 3
SPA 2
SPA 1
9162,9164 STB
BU2040 DATA
BU2040 CLK
CD REQ/ENA
SB DATA
SB CLK
POW ON/OFF
PLL/9162,9164 CLK
PLL/9162,9164 DATA
PLL CE
FL AC1
VFDP
FL AC2
u+5.6V
D.GND
u +5.6v
D1901
L1901
C1901
C1902
C1903
C1906
C1907
C1908
R1901
R1902
R1903
R1904
R1905
D1903
Q1902
C1910
XDC143EK-TL
R1934 4.7k
Q1903
XDC124ES-T
D1906
D15A13-200-2468
J17
To DECK unit CN3002 (→SCH-3)
DECK CLK
DECK DATA
DECK CE
D.GND
u.+5V
KO7
KO8
KI0
KI1
KI2
KI3
PULSE 1
PULSE 2
AKT1010
D15A14-200-2468
J18
CN1903
AKT1029
KO3
KO0
KO1
KO2
KI2
KO5
KO4
KI3
KI0
+5V
REC
REV
FWD
GND
R1701
R1703
D1701
PCX1019
STANDBY
DTA124EK-TL
Q1701
D1703
D1704
D1705
D1706
AEL1118-A-T
TUNER
TAPE
CD
MD
Q1703
Q1704
Q1705
Q1706
XDC124EK-TL
TAPE KEY assy (AWZ7246)
CN1904
S1812 SFC
S1814 REC
S1813 ASES
S1816 TAPE1/2
S1817 DOLBY
S1818 ◁◁
S1819 ▷▷
S1821 ▷
S1822 ◁
S1823 STOP □
KI0
KI2
KI3
KO0
KO1
KO2
KO3
KO4
KO5
R1704
R1702
D1707
D1708
D1702
FWD
REV
REC
AEL1132-A
AEL1131-A
Q1702
XDC124ES-T
SD TYPE ONLY
MIC assy (AWZ7267 : SD type only)
To MAIN assy CN19 (→SCH-7)
D15A04-350-2468
J19
AKT1090
GND
+12V
MIC
-12V
HJ1202
AKN1030
R2501 220
C2502 4.7/35
IC2501
NJM4558M-D-TR
2/2
R2505 68.0k
C2504 220p
C2507 0.047
R2506 10
R2502 10.0k
C2501 1200p
R2503 220.0k
C2503
R2504 2.2k

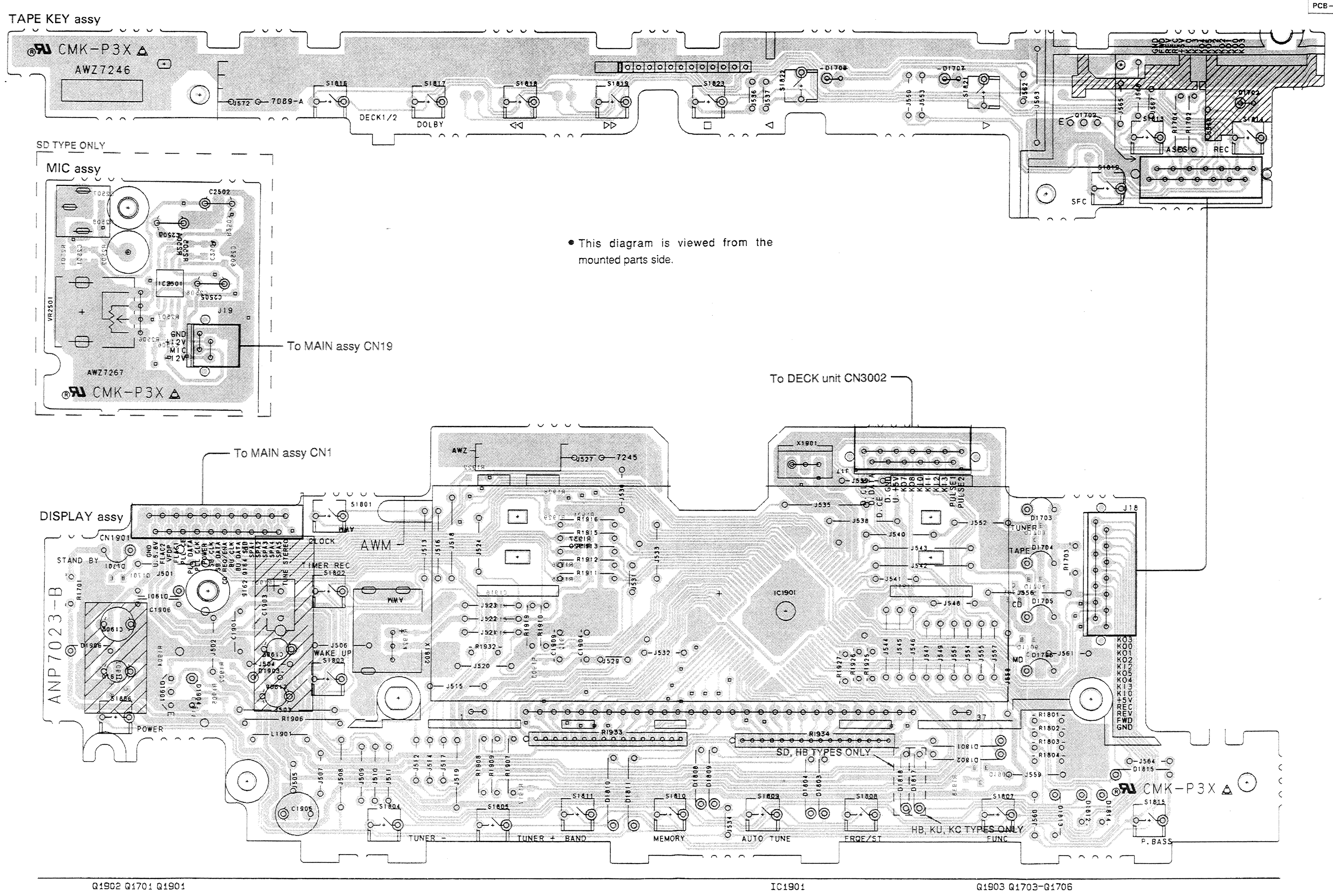
DISPLAY ASSY, TAPE KEY ASSY, MIC ASSY


SCH-6
L1901
22
BU +5v
C1904
0.047
C1905 220/10
R1903
10.0k
Q1901
2SC2458
C1909
1000p
R1905
10.0k
Q1902
R1906
C1911
0.047
D1904
C1912
0.047
R1933
47.0k
RA1ST473J
R1934
47.0k
RA1ST473J
D(1:17)
B(1:7)
C(1:12)
E(1:9)
A(1:21)
5G
4G
3G
2G
1G
P1
P2
P3
P4
VFDP
P5
P6
P7/K00
P8/K01
P9/K02
P10/K03
6G
7G
8G
9G
10G
11G
12G
VDD
P11/K04
P12/K05
P13/K06
P14/K07
P15/K08
P16
P17
R1917 4.7k
R1918 4.7k
R1919 47.0k 1/8W
R1935 47k
R1936 47k
R1937 47k
R1920 4.7k
R1921 4.7k
R1929 4.7k
R1907 560 1/8W
DECK CLK
R1908 560 1/8W
DECK DATA
R1909 560 1/8W
DECK CE
R1910 2.2k 1/8W
POW ON/OFF
R1911 560 1/8W
SB CLK
R1912 560 1/8W
SB DATA
R1913 560 1/8W
CD REQ/ENA
NC
RESET
R1915 560 1/8W
BU2040 CLK
R1916 560 1/8W
BU2040 DATA
GND
R1928 560
9162,9164 STB
NC
SPA 1
SPA 2
IC1901
PD4523A
IC1901 : SYSTEM CONTROL CPU
KI0
KI1
KI2
KI3
VDD
PLL 9162,9164 CLK
PLL 9162,9164 DATA
PLL CE
GND
REMO
AC
PULSE 1
PULSE 2
FWD
REV
REC
R1927 560 1/8W
R1926 560 1/8W
R1925 560 1/8W
F(1:4)
C1916 1000p
R1930 4.7k 1/8W
R1931 4.7k 1/8W
C1915 1000p
R1932 4.7k
SPA 3
SPA 4
SPA 5
TUNE STEREO
NC
GND
X1901
CD
PB
MD
STANDBY
G(1:8)
X1902
AXX1023
OUT
Vcc
GND
R1924
10.0k
R1922
2.2k
F1
F1
12G
11G
10G
9G
8G
7G
6G
5G
4G
3G
2G
1G
P1
P2
P3
P4
P5
P6
P7
P8
P9
P10
P11
P12
P13
P14
P15
P16
P17
F2
F2
AAV7006
V1701
C2505
10/16
VR2501
10k
C2506
0.047
IC2501
NJM4558M-D-TR
1/2
2/2
R2507
8.2k
C2506
6800p
R2506
2.2k
C2509
0.047
Any diode without part number indicates HSS104-02.
D1801
D1802
HB, KU, KC TYPES ONLY
SD, HB TYPES ONLY
D1817
D1818
D1812
D1813
D1814
D1815
D1804
D1808
D1809
D1810
D1811
R1804
22k
1/8W
R1803
22k
1/8W
R1802
22k
1/8W
R1801
22k
1/8W
KI0
KI1
KI2
KI3
CLOCK
S1801
TIMER REC
S1802
WAKE UP
S1803
TUNER -
S1804
TUNER +
S1805
POWER
S1806
FUNCTION
S1807
ST/FRQ
S1808
AUTO TUNE
S1809
MEMORY
S1810
BAND
S1811
P.BASS
S1815
K08
K07
K06
K05
K04
K03
K02
K01
K00
H(1:11)

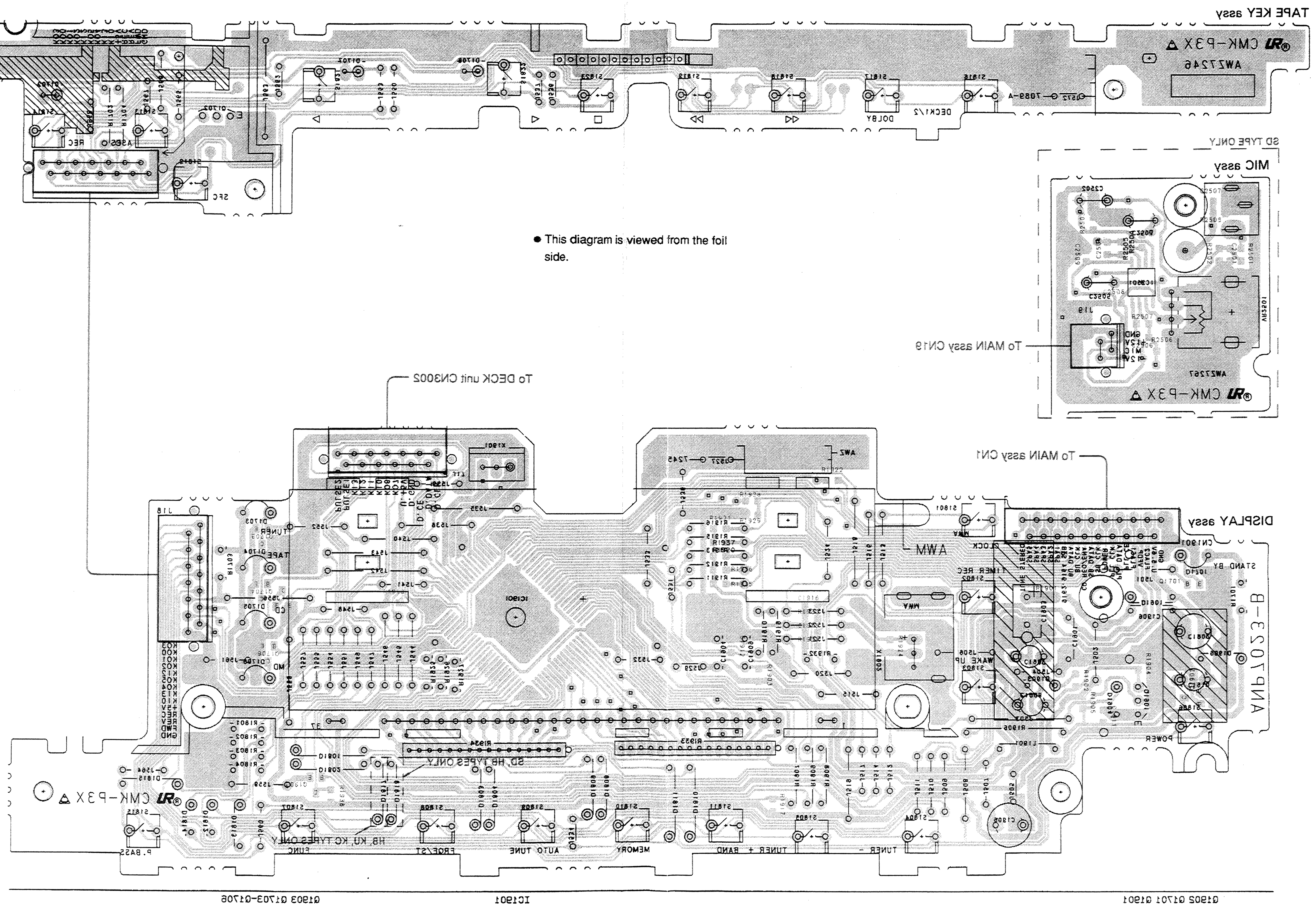
**DISPLAY ASSY, TAPE KEY ASSY, MIC ASSY**

**SCH-6**

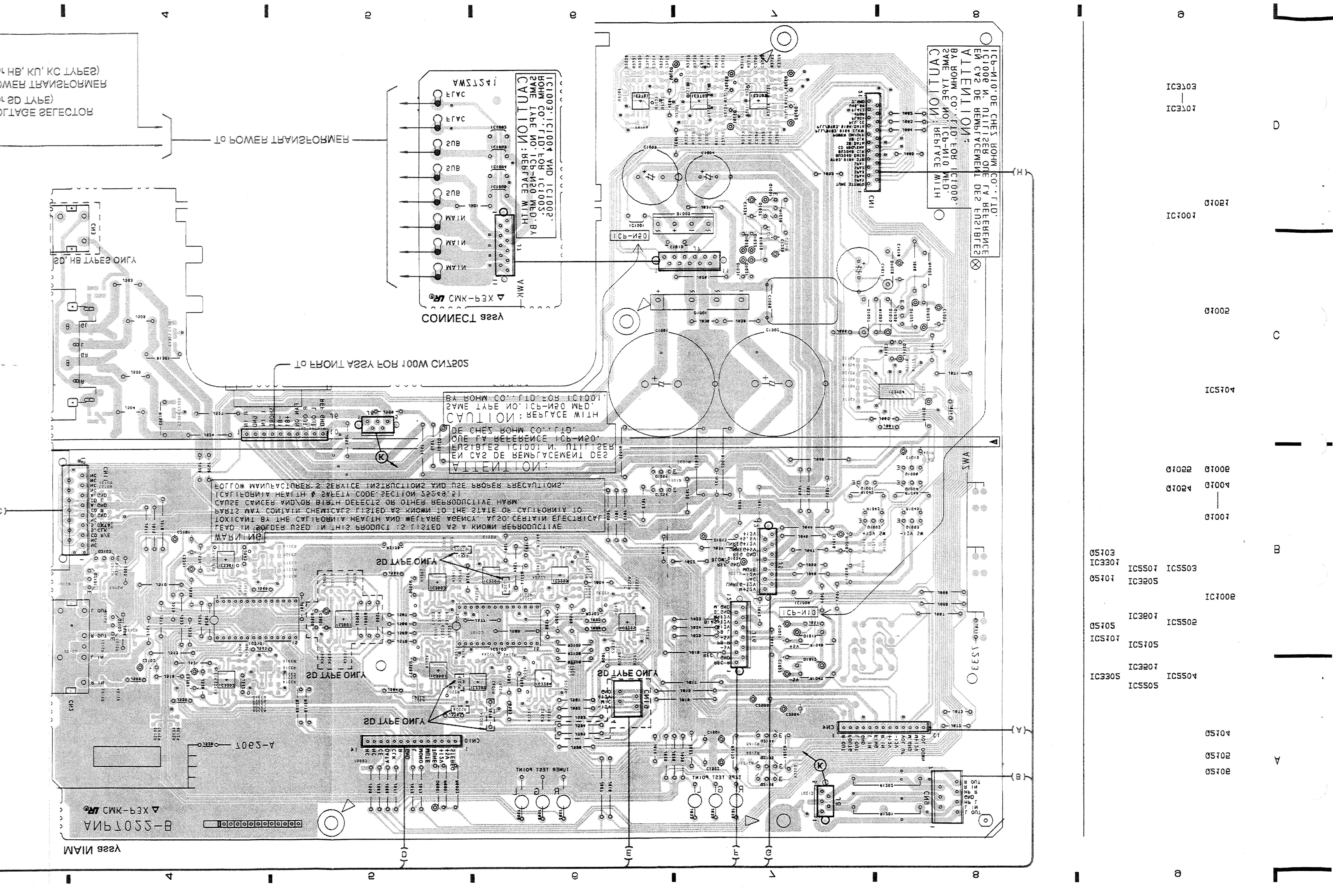
PCB-5


TAPE KEY assy
CMK-P3X
AWZ7246
7089-A
DECK1/2
DOLBY
SFC
ASBS
REC
GND
SD TYPE ONLY
MIC assy
C2502
IC2501
VR2501
J19
GND
+12V
MIC
-12V
AWZ7267
CMK-P3X
To MAIN assy CN19
To DECK unit CN3002
To MAIN assy CN1
DISPLAY assy
CN1901
STAND BY
CLOCK
TIMER REC
WAKE UP
POWER
AWM
AWZ
7245
X1901
IC1901
J18
TUNER
TAPE
CD
MD
ANP7023-B
R1933
R1934
SD, HB TYPES ONLY
HB, KU, KC TYPES ONLY
TUNER -
TUNER +
BAND
MEMORY
AUTO TUNE
FRQE/ST
FUNC
P.BASS
CMK-P3X
Q1902 Q1701 Q1901
IC1901
Q1903 Q1703-Q1706
1
2
3
4
5
6
A
B
C
D

• This diagram is viewed from the mounted parts side.

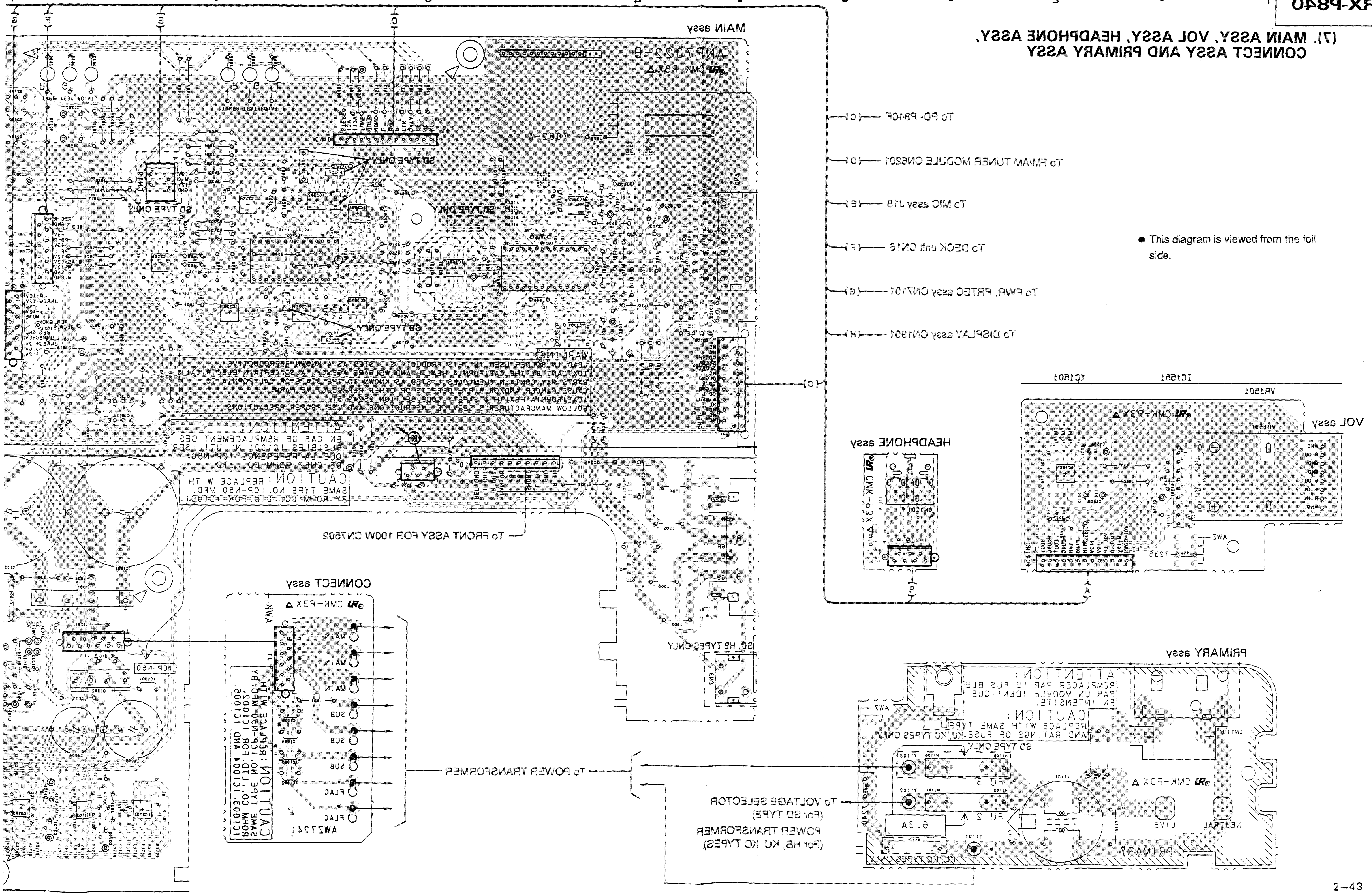

TAPE KEY assy
CMK-P3X
AWZ7246
REC
SFC
DOLBY
DECK1/2
SD TYPE ONLY
MIC assy
To MAIN assy CN19
AWZ7267
To DECK unit CN3002
To MAIN assy CN1
DISPLAY assy
ANP7025-B
IC1901
TUNER
TAPE
CD
MD
SD, HB TYPES ONLY
HB, KU, KC TYPES ONLY
P.BASS
FUNC
FREQ/ST
AUTO TUNE
MEMORY
TUNER + BAND
TUNER -
TIMER REC
WAKE UP
CLOCK
STAND BY
POWER
Q1903 Q1703–Q1706
IC1901
Q1902 Q1701 Q1901

- This diagram is viewed from the foil side.


(HB, KU, KC TYPES)
POWER TRANSFORMER
(SD TYPE)
VOLTAGE SELECTOR
To POWER TRANSFORMER
CONNECT assy
AWZ7241
CMK-P3X
CAUTION : REPLACE WITH SAME TYPE NO. ICP-N50 MFD. BY ROHM CO., LTD. FOR IC1002, IC1003, IC1004 AND IC1005.
FLAG
SUB
MAIN
SD, HB TYPES ONLY
To FRONT ASSY FOR 100W CN7502
ICP-N50
CAUTION : REPLACE WITH SAME TYPE NO. ICP-N50 MFD. BY ROHM CO., LTD. FOR IC1001.
ATTENTION : EN CAS DE REMPLACEMENT DES FUSIBLES IC1001 N. UTILISER QUE LA REFERENCE ICP-N50 DE CHEZ ROHM CO., LTD.
CAUTION : REPLACE WITH SAME TYPE NO. ICP-N10 MFD. BY ROHM CO., LTD. FOR IC1006.
ATTENTION : EN CAS DE REMPLACEMENT DES FUSIBLES IC1006 N. UTILISER QUE LA REFERENCE ICP-N10 DE CHEZ ROHM CO., LTD.
WARNING
LEAD IN SOLDER USED IN THIS PRODUCT IS LISTED AS A KNOWN REPRODUCTIVE TOXICANT BY THE CALIFORNIA HEALTH AND WELFARE AGENCY. ALSO, CERTAIN ELECTRICAL PARTS MAY CONTAIN CHEMICALS LISTED AS KNOWN TO THE STATE OF CALIFORNIA TO CAUSE CANCER AND/OR BIRTH DEFECTS OR OTHER REPRODUCTIVE HARM. (CALIFORNIA HEALTH & SAFETY CODE, SECTION 25249.5)
FOLLOW MANUFACTURER'S SERVICE INSTRUCTIONS AND USE PROPER PRECAUTIONS.
SD TYPE ONLY
ICP-N10
TUNER TEST POINT
TAPE TEST POINT
7062-A
MAIN assy
ANP7022-B
CMK-P3X
A
B
C
D
4
5
6
7
8
9
IC3703
IC3701
Q1051
IC1001
Q1005
IC2704
Q1055
Q1006
Q1054
Q1004
Q1001
Q2703
IC3307
Q2701
IC2501
IC2503
IC3502
IC1006
Q2702
IC2701
IC3801
IC2505
IC2705
IC3501
IC3305
IC2502
IC2504
Q2704
Q2705
Q2706

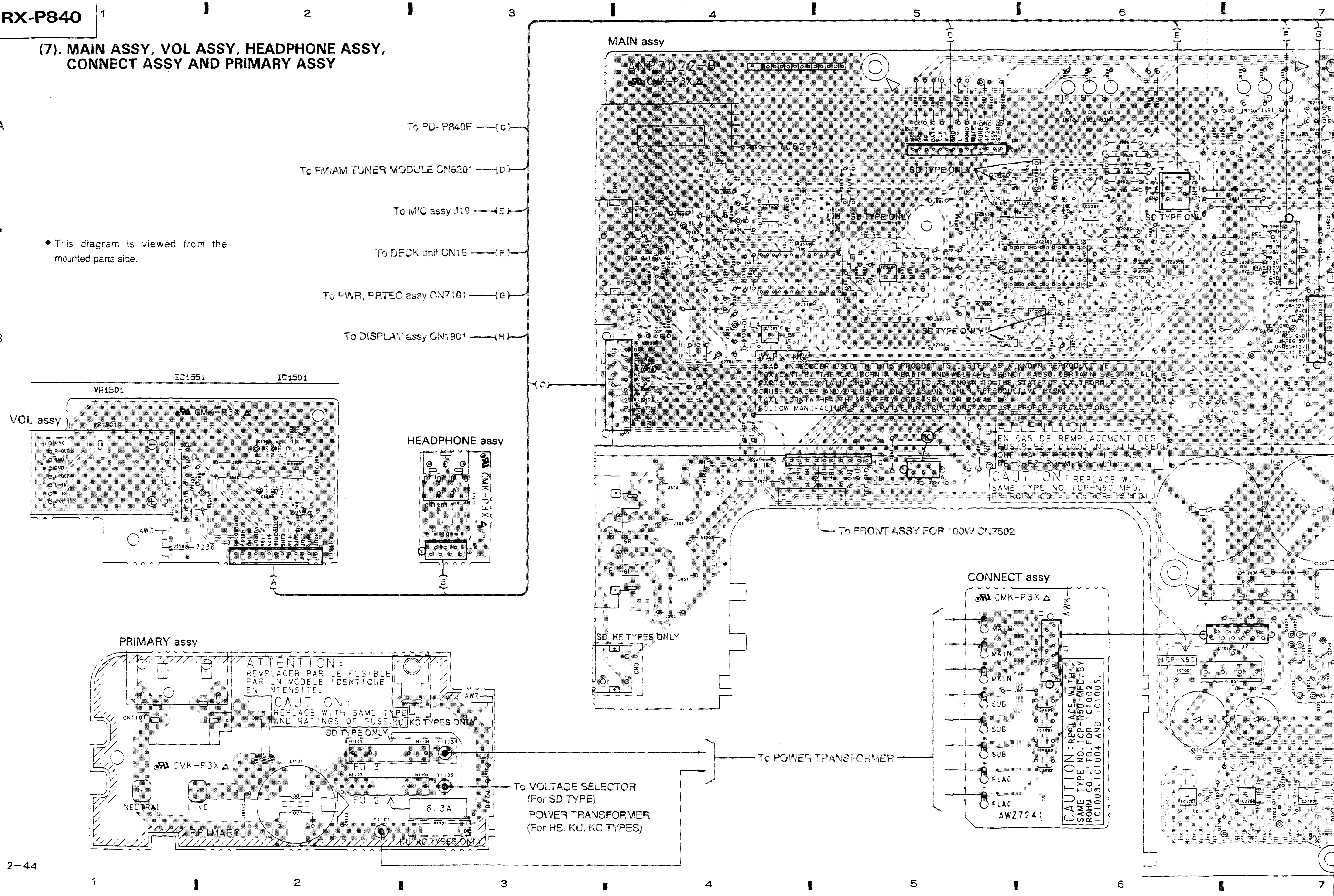
## (7). MAIN ASSY, VOL ASSY, HEADPHONE ASSY, CONNECT ASSY AND PRIMARY ASSY

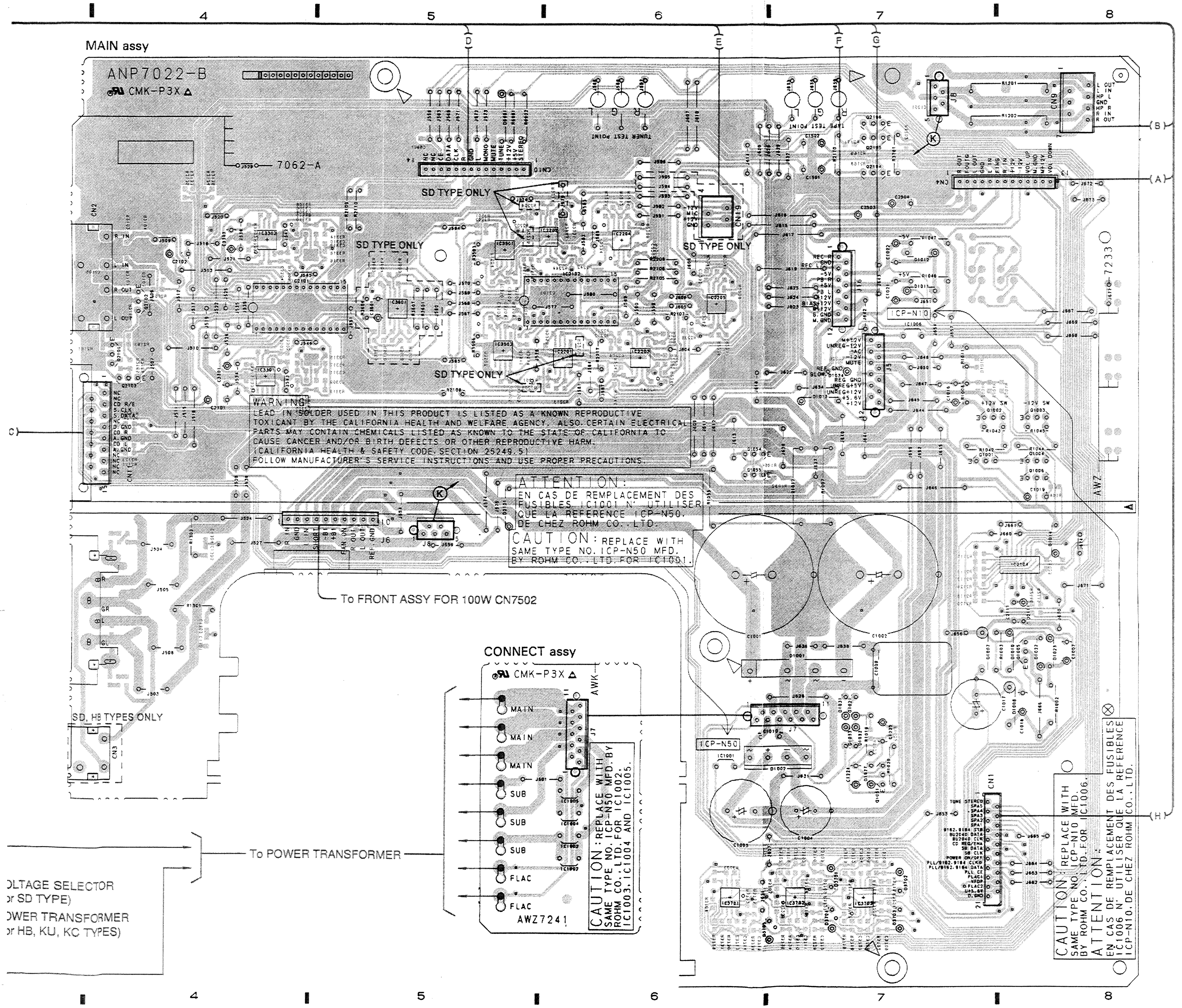
- This diagram is viewed from the foil side.


MAIN assy
ANP7022-B
CMK-P3X
SD TYPE ONLY
(C) To PD-P840F
(D) To FM/AM TUNER MODULE CN6201
(E) To MIC assy J19
(F) To DECK unit CN16
(G) To PWR, PRTEC assy CN7101
(H) To DISPLAY assy CN1901
WARNING: LEAD IN SOLDER USED IN THIS PRODUCT IS LISTED AS A KNOWN REPRODUCTIVE TOXICANT BY THE CALIFORNIA HEALTH AND WELFARE AGENCY. ALSO, CERTAIN ELECTRICAL PARTS MAY CONTAIN CHEMICALS LISTED AS KNOWN TO THE STATE OF CALIFORNIA TO CAUSE CANCER AND/OR BIRTH DEFECTS OR OTHER REPRODUCTIVE HARM. (CALIFORNIA HEALTH & SAFETY CODE, SECTION 25249.5) FOLLOW MANUFACTURER'S SERVICE INSTRUCTIONS AND USE PROPER PRECAUTIONS.
ATTENTION: EN CAS DE REMPLACEMENT DES FUSIBLES IC1001 N' UTILISER QUE LA REFERENCE ICP-N50. DE CHEZ ROHM CO. LTD.
CAUTION: REPLACE WITH SAME TYPE NO. ICP-N50 MFD. BY ROHM CO. LTD. FOR IC1001.
To FRONT ASSY FOR 100W CN7502
CONNECT assy
MAIN
SUB
FLAC
AWZ7241
To POWER TRANSFORMER
SD, HB TYPES ONLY
HEADPHONE assy
CN1201
J9
VOL assy
IC1501
IC1551
VR1501
PRIMARY assy
ATTENTION: REMPLACER PAR LE FUSIBLE PAR UN MODELE IDENTIQUE EN INTENSITE.
CAUTION: REPLACE WITH SAME TYPE AND RATINGS OF FUSE-KU, KC TYPES ONLY
SD TYPE ONLY
FU 3
FU 2
6.3A
LIVE
NEUTRAL
PRIMARY
KU, KC TYPES ONLY
To VOLTAGE SELECTOR (For SD TYPE)
POWER TRANSFORMER (For HB, KU, KC TYPES)

## (7). MAIN ASSY, VOL ASSY, HEADPHONE ASSY, CONNECT ASSY AND PRIMARY ASSY

- This diagram is viewed from the mounted parts side.


1
2
3
4
5
6
7
A
B
C
D
MAIN assy
ANP7022-B
CMK-P3X
7062-A
To PD- P840F (C)
To FM/AM TUNER MODULE CN6201 (D)
To MIC assy J19 (E)
To DECK unit CN16 (F)
To PWR, PRTEC assy CN7101 (G)
To DISPLAY assy CN1901 (H)
TUNER TEST POINT
TAPE TEST POINT
SD TYPE ONLY
SD TYPE ONLY
SD TYPE ONLY
SD TYPE ONLY
CN10
CN2
CN19
J16
J6
J8
K
WARNING
LEAD IN SOLDER USED IN THIS PRODUCT IS LISTED AS A KNOWN REPRODUCTIVE TOXICANT BY THE CALIFORNIA HEALTH AND WELFARE AGENCY. ALSO CERTAIN ELECTRICAL PARTS MAY CONTAIN CHEMICALS LISTED AS KNOWN TO THE STATE OF CALIFORNIA TO CAUSE CANCER AND/OR BIRTH DEFECTS OR OTHER REPRODUCTIVE HARM.
(CALIFORNIA HEALTH & SAFETY CODE SECTION 25249.5)
FOLLOW MANUFACTURER'S SERVICE INSTRUCTIONS AND USE PROPER PRECAUTIONS.
ATTENTION:
EN CAS DE REMPLACEMENT DES FUSIBLES IC1001 N' UTILISER QUE LA REFERENCE ICP-N50. DE CHEZ ROHM CO., LTD.
CAUTION: REPLACE WITH SAME TYPE NO. ICP-N50 MFD. BY ROHM CO., LTD. FOR IC1001.
To FRONT ASSY FOR 100W CN7502
SD, HB TYPES ONLY
CN3
IC1551
IC1501
VR1501
VOL assy
CMK-P3X
CN1504
7236
AWZ
A
HEADPHONE assy
CMK-P3X
CN1201
J9
B
CONNECT assy
CMK-P3X
AWK
MAIN
MAIN
MAIN
SUB
SUB
SUB
FLAC
FLAC
J7
AWZ7241
CAUTION: REPLACE WITH SAME TYPE NO. ICP-N50 MFD. BY ROHM CO., LTD. FOR IC1002, IC1003, IC1004 AND IC1005.
ICP-N50
To POWER TRANSFORMER
PRIMARY assy
ATTENTION:
REMPLACER PAR LE FUSIBLE PAR UN MODELE IDENTIQUE EN INTENSITE.
CAUTION:
REPLACE WITH SAME TYPE AND RATINGS OF FUSE.
KU, KC TYPES ONLY
SD TYPE ONLY
CN1101
CMK-P3X
FU 3
FU 2
6.3A
NEUTRAL
LIVE
PRIMARY
AWZ
7240
KU, KC TYPES ONLY
To VOLTAGE SELECTOR (For SD TYPE)
POWER TRANSFORMER (For HB, KU, KC TYPES)


4
5
6
7
8
MAIN assy
ANP7022-B
CMK-P3X
7062-A
D
E
F
G
TUNER TEST POINT
TAPE TEST POINT
SD TYPE ONLY
SD TYPE ONLY
SD TYPE ONLY
SD TYPE ONLY
CN10
CN19
CN9
CN2
CN11
J16
J15
J6
J8
J7
CN1
K
ICP-N10
ICP-N50
(A)
(B)
(C)
(H)
7233
AWZ
WARNING:
LEAD IN SOLDER USED IN THIS PRODUCT IS LISTED AS A KNOWN REPRODUCTIVE TOXICANT BY THE CALIFORNIA HEALTH AND WELFARE AGENCY. ALSO, CERTAIN ELECTRICAL PARTS MAY CONTAIN CHEMICALS LISTED AS KNOWN TO THE STATE OF CALIFORNIA TO CAUSE CANCER AND/OR BIRTH DEFECTS OR OTHER REPRODUCTIVE HARM.
(CALIFORNIA HEALTH & SAFETY CODE, SECTION 25249.5)
FOLLOW MANUFACTURER'S SERVICE INSTRUCTIONS AND USE PROPER PRECAUTIONS.
ATTENTION:
EN CAS DE REMPLACEMENT DES FUSIBLES IC1001 N' UTILISER QUE LA REFERENCE ICP-N50, DE CHEZ ROHM CO., LTD.
CAUTION: REPLACE WITH SAME TYPE NO. ICP-N50 MFD. BY ROHM CO., LTD. FOR IC1001.
To FRONT ASSY FOR 100W CN7502
SD, HB TYPES ONLY
CN3
CONNECT assy
CMK-P3X
AWK
MAIN
MAIN
MAIN
SUB
SUB
SUB
FLAC
FLAC
AWZ7241
CAUTION: REPLACE WITH SAME TYPE NO. ICP-N50 MFD. BY ROHM CO., LTD. FOR IC1002, IC1003, IC1004 AND IC1005.
To POWER TRANSFORMER
OLTAGE SELECTOR
or SD TYPE)
OWER TRANSFORMER
or HB, KU, KC TYPES)
CAUTION: REPLACE WITH SAME TYPE NO. ICP-N10 MFD. BY ROHM CO., LTD. FOR IC1006.
ATTENTION: EN CAS DE REMPLACEMENT DES FUSIBLES IC1006 N' UTILISER QUE LA REFERENCE ICP-N10, DE CHEZ ROHM CO., LTD.
4
5
6
7
8

9

A

Q2106
Q2105
Q2104

IC3302
IC2202
IC3501
IC2204
IC2101
IC2102
Q2102
IC3601
IC2205
IC1006
Q2101
IC3502
IC2201
IC2203
IC3301
Q2103

B

Q1001
|
Q1004
Q1054
Q1055
Q1006

IC2104

C

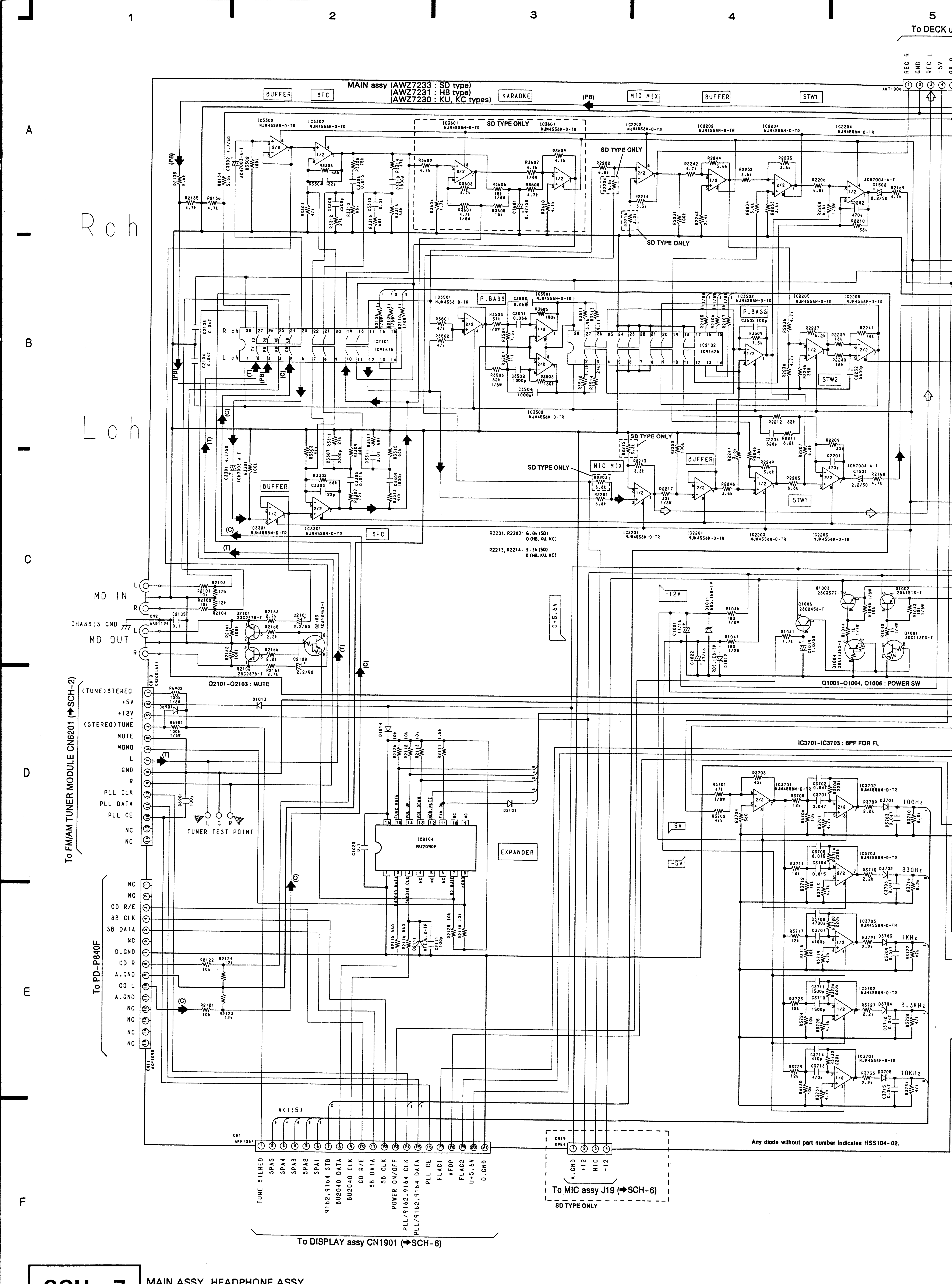
Q1005

IC1001
Q1051

D

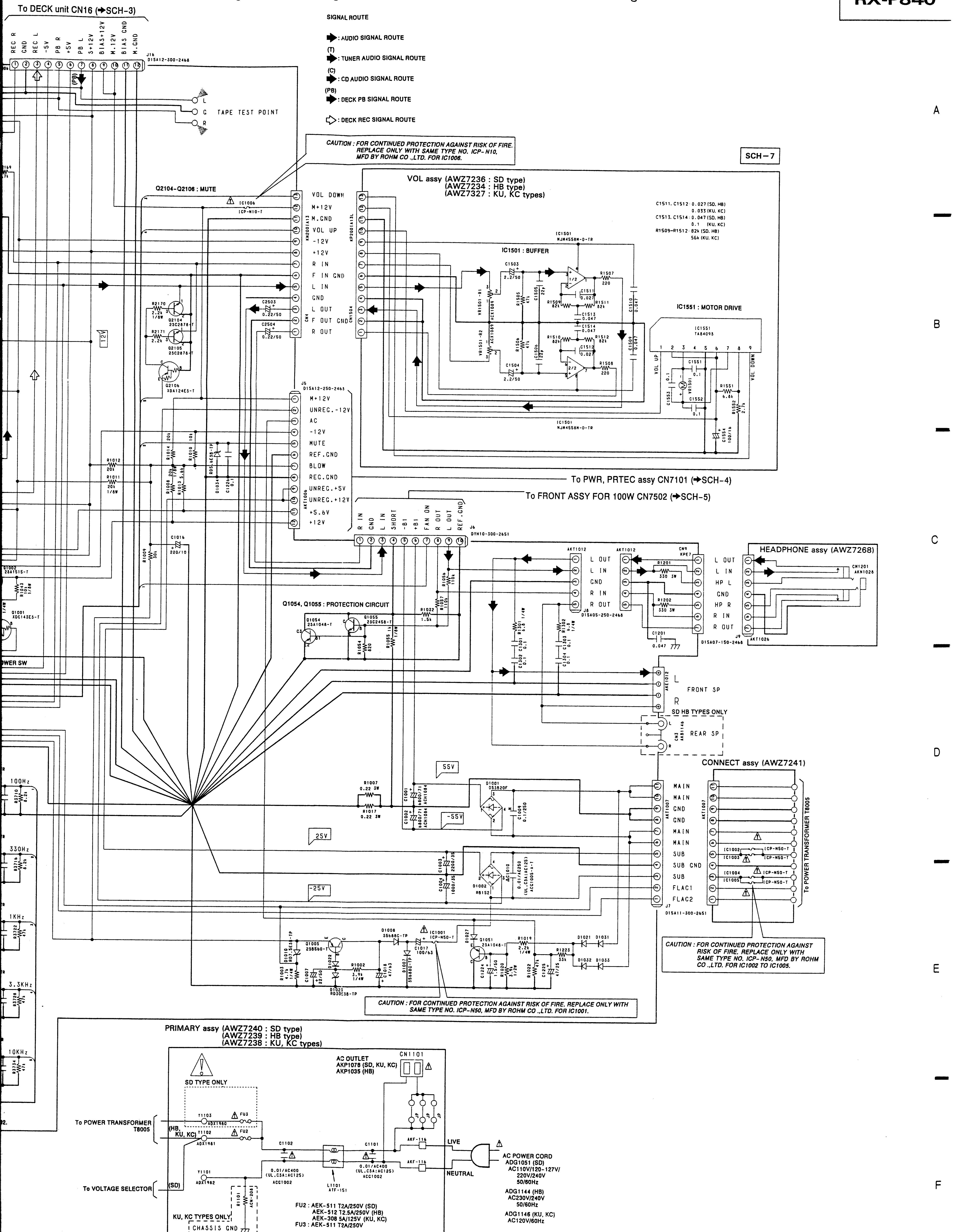
IC3701
|
IC3703

9


MAIN assy (AWZ7233 : SD type)
(AWZ7231 : HB type)
(AWZ7230 : KU, KC types)
To DECK
BUFFER
SFC
KARAOKE
MIC MIX
STW1
SD TYPE ONLY
P.BASS
STW2
Rch
Lch
IC2101 TC9164N
IC2102 TC9162N
IC2104 BU2090F
EXPANDER
MD IN
CHASSIS GND
MD OUT
Q2101-Q2103 : MUTE
Q1001-Q1004, Q1006 : POWER SW
IC3701-IC3703 : BPF FOR FL
100Hz
330Hz
1KHz
3.3KHz
10KHz
R2201, R2202 6.8k (SD) 0 (HB, KU, KC)
R2213, R2214 3.3k (SD) 0 (HB, KU, KC)
-12V
5V
-5V
D+5.6V
(TUNE)STEREO
+5V
+12V
(STEREO)TUNE
MUTE
MONO
L
GND
R
PLL CLK
PLL DATA
PLL CE
NC
TUNER TEST POINT
To FM/AM TUNER MODULE CN6201 (➔SCH-2)
CD R/E
SB CLK
SB DATA
D.GND
CD R
A.GND
CD L
To PD-P840F
TUNE STEREO
SPA5
SPA4
SPA3
SPA2
SPA1
9162,9164 STB
BU2040 DATA
BU2040 CLK
CD R/E
SB DATA
SB CLK
POWER ON/OFF
PLL/9162,9164 CLK
PLL/9162,9164 DATA
PLL CE
FLAC1
VFDP
FLAC2
U+5.6V
D.GND
To DISPLAY assy CN1901 (➔SCH-6)
A.GND
+12
MIC
-12
To MIC assy J19 (➔SCH-6)
SD TYPE ONLY
Any diode without part number indicates HSS104-02.

# SCH−7

MAIN ASSY, HEADPHONE ASSY,
VOL ASSY, CONNECT ASSY,
PRIMARY ASSY


To DECK unit CN16 (➔SCH-3)
REC R
GND
REC L
-5V
PB R
+5V
PB L
S+12V
BIAS+12V
M.12V
BIAS GND
M.GND
J16 D15A12-300-2468
TAPE TEST POINT
L
C
R
SIGNAL ROUTE
: AUDIO SIGNAL ROUTE
(T) : TUNER AUDIO SIGNAL ROUTE
(C) : CD AUDIO SIGNAL ROUTE
(PB) : DECK PB SIGNAL ROUTE
: DECK REC SIGNAL ROUTE
SCH-7
VOL assy (AWZ7236 : SD type)
(AWZ7234 : HB type)
(AWZ7327 : KU, KC types)
C1511, C1512: 0.027 (SD, HB) 0.033 (KU, KC)
C1513, C1514: 0.047 (SD, HB) 0.1 (KU, KC)
R1509–R1512: 82k (SD, HB) 56k (KU, KC)
IC1501 NJM4558M-D-TR
IC1501 : BUFFER
IC1551 : MOTOR DRIVE
IC1551 TA8409S
VOL UP
VOL DOWN
Q2104–Q2106 : MUTE
IC1006 ICP-N10-T
VOL DOWN
M+12V
M.GND
VOL UP
-12V
+12V
R IN
F IN GND
L IN
GND
L OUT
F OUT GND
R OUT
CN4
CN1504
KM200IA13
KP200IA13L
Q2104 2SC2878-T
Q2105 2SC2878-T
Q2106 XDA124ES-T
12V
J5 D15A12-250-2468
M+12V
UNREG.-12V
AC
-12V
MUTE
REF.GND
BLOW
REC.GND
UNREG.+5V
UNREG.+12V
+5.6V
+12V
AKT1006
R IN
GND
L IN
SHORT
-B1
+B1
FAN ON
R OUT
L OUT
REF.GND
J6 DYH10-300-2651
To PWR, PRTEC assy CN7101 (➔SCH-4)
To FRONT ASSY FOR 100W CN7502 (➔SCH-5)
Q1054, Q1055 : PROTECTION CIRCUIT
Q1054 2SA1048-T
Q1055 2SC2458-T
AKT1012
L OUT
L IN
GND
R IN
R OUT
J8 D15A05-250-2468
CN9 KPE7
HEADPHONE assy (AWZ7268)
L OUT
L IN
HP L
GND
HP R
R IN
R OUT
CN1201 AKN1028
J9 D15A07-150-2468
AKT1026
L
FRONT SP
R
SD HB TYPES ONLY
REAR SP
CN3 AKB1146
CONNECT assy (AWZ7241)
MAIN
MAIN
GND
GND
MAIN
MAIN
SUB
SUB GND
SUB
FLAC1
FLAC2
J7 D15A11-300-2651
AKT1007
IC1002 ICP-N50-T
IC1003 ICP-N50-T
IC1004 ICP-N50-T
IC1005 ICP-N50-T
To POWER TRANSFORMER T8005
55V
-55V
25V
-25V
D1001 DS3S20F
D1002 RB1S2
IC1001 ICP-N50-T
Q1005 2SB560-T
Q1051 2SA1048-T
WER SW
Q1002 2SA1515-T
Q1001 XDC143ES-T
100Hz
330Hz
1KHz
3.3KHz
10KHz
PRIMARY assy (AWZ7240 : SD type)
(AWZ7239 : HB type)
(AWZ7238 : KU, KC types)
SD TYPE ONLY
To POWER TRANSFORMER T8005
(HB, KU, KC)
(SD)
To VOLTAGE SELECTOR
KU, KC TYPES ONLY
CHASSIS GND
AC OUTLET AKP1078 (SD, KU, KC) AKP1035 (HB)
CN1101
LIVE
NEUTRAL
AC POWER CORD
ADG1051 (SD) AC110V/120-127V/220V/240V 50/60Hz
ADG1144 (HB) AC230V/240V 50/60Hz
ADG1146 (KU, KC) AC120V/60Hz
FU2 : AEK-511 T2A/250V (SD)
AEK-512 T2.5A/250V (HB)
AEK-308 5A/125V (KU, KC)
FU3 : AEK-511 T2A/250V
L1101 ATF-151
C1101 0.01/AC400 (UL,CSA:AC125) ACC1002
C1102 0.01/AC400 (UL,CSA:AC125) ACC1002

*CAUTION : FOR CONTINUED PROTECTION AGAINST RISK OF FIRE. REPLACE ONLY WITH SAME TYPE NO. ICP-N10, MFD BY ROHM CO.,LTD. FOR IC1006.*

*CAUTION : FOR CONTINUED PROTECTION AGAINST RISK OF FIRE. REPLACE ONLY WITH SAME TYPE NO. ICP-N50, MFD BY ROHM CO.,LTD. FOR IC1002 TO IC1005.*

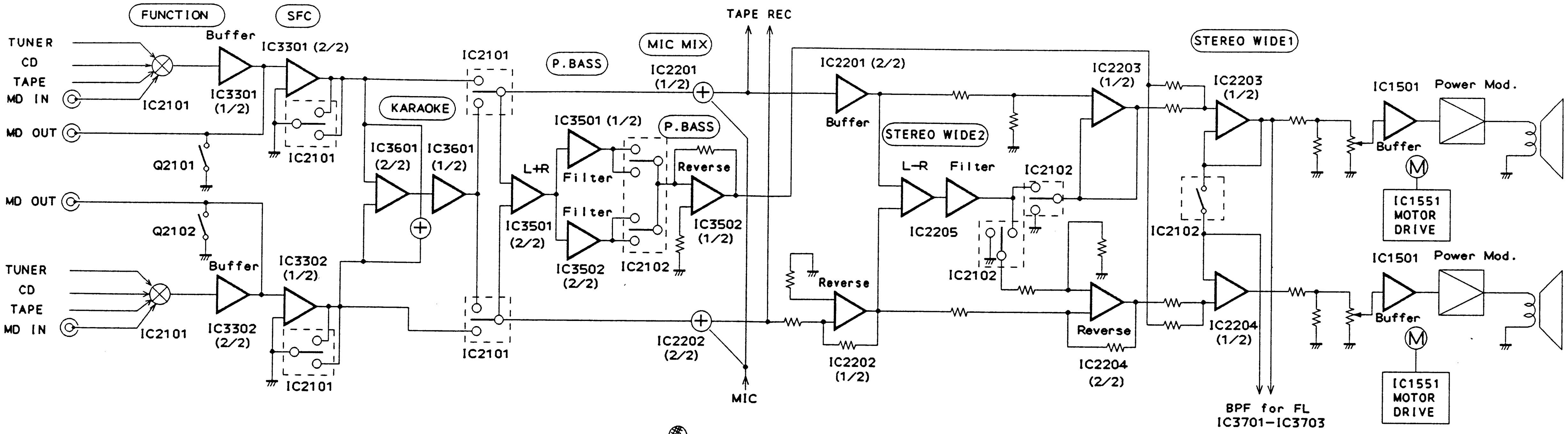
*CAUTION : FOR CONTINUED PROTECTION AGAINST RISK OF FIRE. REPLACE ONLY WITH SAME TYPE NO. ICP-N50, MFD BY ROHM CO.,LTD. FOR IC1001.*

CAUTION- FOR CONTINUED PROTECTION AGAINST FIRE HAZARD, REPLACEMENT FUSES SHOLD BE OF THE SAME TYPE AND RATINGS ONLY.

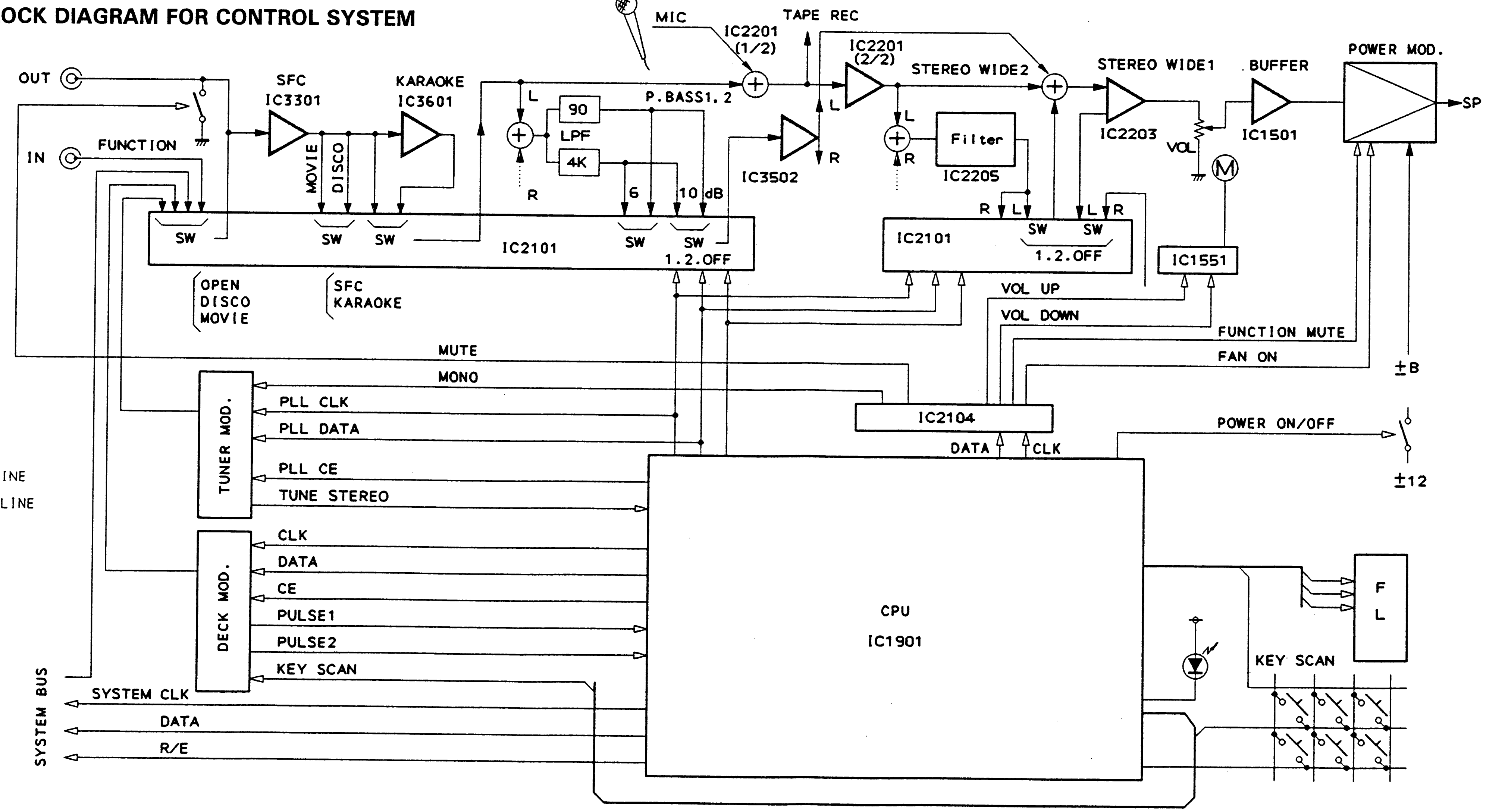
MAIN ASSY, HEADPHONE ASSY,
VOL ASSY, CONNECT ASSY,
PRIMARY ASSY

**SCH−7**

## 2.3 BLOCK DIAGRAM


FUNCTION
SFC
TUNER
CD
TAPE
MD IN
Buffer
IC3301 (2/2)
IC3301 (1/2)
IC2101
MD OUT
Q2101
MD OUT
Q2102
TUNER
CD
TAPE
MD IN
IC2101
Buffer
IC3302 (1/2)
IC3302 (2/2)
IC2101
IC2101
KARAOKE
IC3601 (2/2)
IC3601 (1/2)
IC2101
IC2101
P.BASS
L+R
IC3501 (2/2)
IC3501 (1/2)
Filter
Filter
IC3502 (2/2)
IC2102
P.BASS
Reverse
IC3502 (1/2)
MIC MIX
IC2201 (1/2)
IC2202 (2/2)
TAPE REC
MIC
IC2201 (2/2)
Buffer
STEREO WIDE2
L-R
Filter
IC2205
IC2102
IC2102
Reverse
IC2202 (1/2)
IC2203 (1/2)
IC2102
Reverse
IC2204 (2/2)
STEREO WIDE1
IC2203 (1/2)
IC2204 (1/2)
BPF for FL
IC3701–IC3703
IC1501
Power Mod.
Buffer
M
IC1551
MOTOR
DRIVE
IC1501
Power Mod.
Buffer
M
IC1551
MOTOR
DRIVE

### ● BLOCK DIAGRAM FOR CONTROL SYSTEM


OUT
IN
FUNCTION
SFC
IC3301
KARAOKE
IC3601
MOVIE
DISCO
SW
SW
SW
IC2101
SW
SW
1.2.OFF
OPEN
DISCO
MOVIE
SFC
KARAOKE
L
R
90
LPF
4K
P.BASS1.2
6
10 dB
MIC
IC2201 (1/2)
TAPE REC
IC2201 (2/2)
L
R
IC3502
STEREO WIDE2
L
R
Filter
IC2205
R L
L R
IC2101
SW
SW
1.2.OFF
STEREO WIDE1
IC2203
VOL
BUFFER
IC1501
M
IC1551
POWER MOD.
SP
VOL UP
VOL DOWN
FUNCTION MUTE
FAN ON
±B
MUTE
MONO
TUNER MOD.
PLL CLK
PLL DATA
PLL CE
TUNE STEREO
IC2104
DATA
CLK
POWER ON/OFF
±12
DECK MOD.
CLK
DATA
CE
PULSE1
PULSE2
KEY SCAN
CPU
IC1901
F
L
KEY SCAN
SYSTEM BUS
SYSTEM CLK
DATA
R/E

→ :SIGNAL LINE
▷ :CONTROL LINE